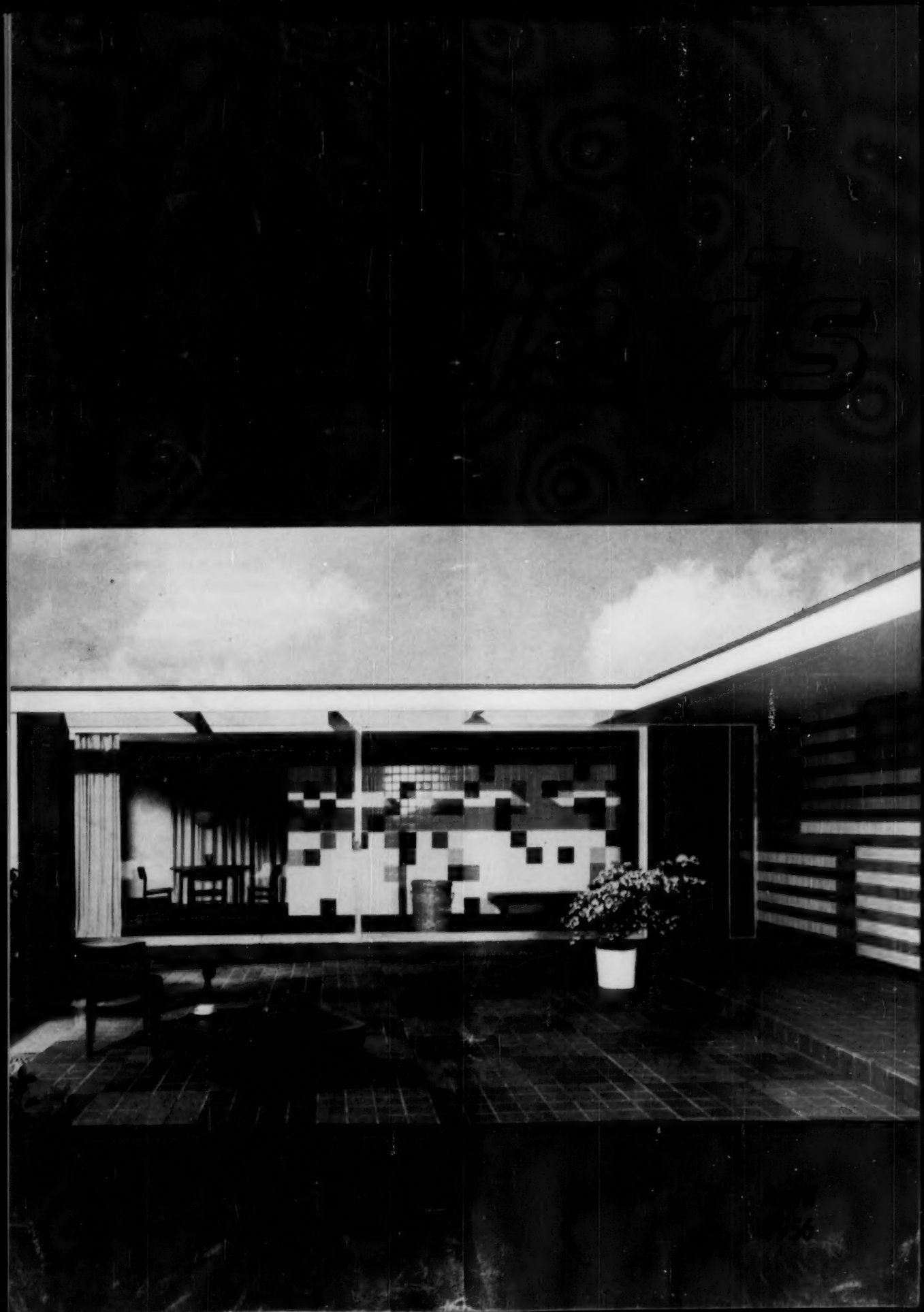

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Marginal Notes

Why Companies Are Members of ASA!

A company that in its own words "has been a member of the ASA as long as anyone remembers" recently wrote to a company that had just joined the American Standards Association. The Superintendent of Standards and Publications of the older company in this letter emphasized an advantage of ASA membership that is important to any company and may be particularly important to a smaller company. The letter was so interesting an expression of what ASA means to its company members and how one long-time member feels about it, that we asked and got permission to reproduce it in THE MAGAZINE OF STANDARDS. Here it is:

"Undoubtedly you feel, as we do, that standardization is an important element both in our national economy and in the operations of our individual companies. For the individual company, regardless of size, the benefits of a sound company standardization program are rather obvious. On the other hand, while even the smallest company benefits from standardization on a national level, the managements of small companies are not always quick to recognize their responsibility for supporting the national standardization program financially and otherwise. Since your company has recognized that responsibility and has acted upon it, I would like to express our gratification for the action you have taken.

"Participation in the ASA often provides direct and immediate benefits to the smaller company, through their association with other companies both large and small that are also ASA members. We are strong believers in this, and I would like you to feel free to call upon me and my company for an interchange of ideas on standardization problems, whenever you feel that such interchange might be beneficial to you. For example, we will be very glad to discuss our policies and practices with you and to provide you with typical examples of the standards

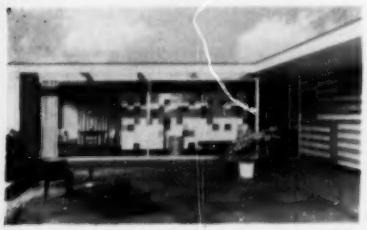
that our company has developed and is using. We will also be glad to furnish copies of papers that members of our staff have presented before regional and national meetings of the ASA. We do this with the full realization that such interchange of information will be more beneficial than detrimental to our company, since undoubtedly we in turn will have something to learn from the ideas and experiences of your company.

"Again let me congratulate you upon the foresight and progressiveness that your company has shown in joining the ASA. If ever we can be of assistance to you in connection with any standardization problem, I hope you will feel free to call upon us."

Company Member Conference—

ASA is trying to make it as easy as possible for Company Members to exchange ideas and information. The Company Member Conference is an organized group which operates under its own chairman, vice-chairman and Administrative Committee, elected each year. This Conference gives representatives of ASA Company Members an opportunity to hear what other members are doing and what problems they are experiencing. The two-day Spring meeting of the Conference is being held this year in Cleveland, May 14 and 15 (see page 113).

The Front Cover—



Tile Council of America

Designed by the Architects' Collaborative and signed by Walter Gropius for the Tile Council of America, this patio is being featured in the Council's advertising in national home magazines this spring. Although "Clay Tile Sizes Have Always Been Modular" (page 104), the personal element enters when individual tile are fit together.

This Month's Standards Personality

WILLIAM DEMAREST, JR., has spent the past six years in a highly successful effort to bring about broad recognition of "modular measure" as the most economical and best method of dimensioning building materials and equipment. As Modular Coordinator with the American Institute of Architects, working with the Joint Committee of AIA and the Producers' Council, he gave lectures to thousands of architects, wrote a periodical entitled "Grid Lines" and a "Modular Memo," and prepared publications directed at specific groups—draftsmen, construction superintendents, and others.

In recognition of this productive work, the Joint Committee unanimously passed a resolution at its February meeting expressing its appreciation for his contributions to "the development, acceptance, and better understanding of the principles and economic advantages of Modular Measure throughout the architectural profession, the producers of materials, and the construction industry."

Mr Demarest is now leaving his work as Modular Coordinator, although he expects still to be connected with modular measure. He is the new Assistant Director of the Construction Department and Research Institute, National Association of Home Builders. The NAHB is a sponsor of the modular measure project organized under the procedures of the American Standards Association and known as Project A62. Mr Demarest says, "I am therefore hopeful that I will find many opportunities in the future to make what contribution I can toward the goals of standardization."

Following graduation from Princeton University, Mr Demarest spent three years at sea in Navy service, one of them in conmmand of a subchaser in the Caribbean and Atlantic. He was Lieutenant Commander when he left the Navy.

When not engaged in restoring his 25-year-old Model "A" Ford, he sails or skis for relaxation. These days he sails only when he can line up a friend with a boat, he says. Skiing he considers to be the ideal "businessman's capsule holiday." Last winter was a high point—skiing in the Austrian Alps as well as in Pennsylvania and Vermont.

The visit to Austria was due to a trip to Europe as USA liaison representative with the European Productivity Agency project on Modular Measure. Eleven European countries are now engaged in the project.

Mr Demarest lives in Bethesda, Maryland, with his wife and two children. Of the past six years he says: "My work toward setting Modular Measure 'on its feet' has been very rewarding to me, partly because the Modular system is now accepted as the way all dimensioning will be done in U. S. building, but even more because this has been a cooperative project. Diverse groups have worked together to put across a kind of standardization which will benefit all—not just the building industry but, ultimately, the whole population."

Hercules Powder Company, Inc.

E. I. du Pont de Nemours & Co.

FACING PAGE—
THERE SHE GOES! *American Standard Safety Procedures for Quarries makes blasting safer, more efficient.*
ABOVE: 27,000 *pounds of explosives in a traprock quarry. Excellent initial breakage provides slope of broken rock for easy shovel digging.*
BELOW: *Blasting agent kicks out* 25,000 *tons of sandstone with high-grade silica content for use in manufacture of glass, sodium silicate and silicones.*

Daniel Harrington served as chief of the Health and Safety Service of the U. S. Bureau of Mines from 1933 *to* 1948. *He was chairman of ASA's Mining Standardization Correlating Committee (now the Mining Standards Board) for ten years until his retirement in* 1948. *On his retirement members of the committee declared that "all realize how fearless a fighter and how effective a leader Mr Harrington has been in the long campaign to minimize hazards in mining operations."*

Reminiscences of committee work on

Procedures for Quarries

Even before standard was finished, committee's activities improved quarry safety

by D. HARRINGTON

THE American Standard Safety Procedures for Quarries is a real accomplishment and a monument to an enormous amount of effort by capable, earnest persons connected directly or indirectly with the quarrying industry. The project had its inception at least 15 years ago.

The late H. M. Lawrence of the American Standards Association and the author of this article had more or less continuous guidance of the project from its beginning. Both of us were out of the active picture when the conclusion was reached — he removed by death, and I by retirement from active work.

After repeated delays in getting action from the Mining Standardization Correlating Committee (now the Mining Standards Board) I (as chairman of the MSCC), with Mr Lawrence's help, appointed a formulating committee in accordance with ASA procedures. Members were selected from all organizations which we thought had a legitimate interest in the project. To get the ball rolling a draft of a proposed code was made in the Bureau of Mines using various sources of information, chiefly, publications of the Bureau of Mines. It is of interest that one of these sources of information was the only Industry Safety Code adopted by the NRA (National Recovery Act) operating in the early days of the New Deal when General Johnson held sway.

The draft of the proposed code, prepared in the Bureau of Mines, was put in mimeographed form by ASA and circulated to members of the committee in accordance with ASA procedures. The first meeting of the committee was held in New York City with almost all committee members present. A real storm started immediately. There were numerous antagonistic interests present and some of the industry members voiced the idea that an attempt was being made to "ram things down the throat" of the quarry industry. After considerable effort (largely by me as the author of the objectionable draft) the committee then turned its attention to the membership of the committee. Some industry members felt that some of those present should not participate if the project should be finally undertaken.

After months of bickering and delay, the National Safety Council's Cement and Quarry Section intervened and took over the manuscript that had been mimeographed by ASA. After much work and more delay a Quarry Safety pamphlet was issued in printed form by the National Safety Council. After several hundred copies of the pamphlet had been distributed, some powerful industry interests intervened and the pamphlet was withdrawn by the National Safety Council, revised, and reissued.

While the National Safety Council pamphlet was satisfactory to much of the quarry industry, it was felt by many that it failed to relieve ASA from its obligations in the matter of safety in quarrying. Hence the committee was revived several years ago and the American Standard Safety Procedures for Quarries, recently issued, was the final and much delayed result.

It is improbable that many (if any) ASA projects of a safety nature ever caused as much real work by many capable experts as did this project. It is also doubtful whether any single project ever did as much real good in the accomplishment of its intended benefits even though the end of the journey, completion of the standard, came so recently. Even if this standard had never been fin-

What the quarry standard covers

THE American Standard Safety Procedures for Quarries, M28.1-1955, just published, was developed by a sectional committee sponsored by the National Safety Council. The work was done with agreement of the Council's Cement and Quarry Section. W. P. Leake, Louisville Cement Corporation, a representative of the National Safety Council, was chairman of the committee. G. G. Grieve, National Safety Council staff, served as secretary.

The committee based its work on a publication of the Council entitled *Safety in Quarry Operations* which served as a guide for safety in the quarry industry for many years. However, the new American Standard enlarges on safe procedures dealing with explosives and the operation of trucks and other quarry equipment. It also makes a point of recommending procedures for eliminating frequent and serious hazards in quarries.

As defined in the standard itself, "quarries" refers to open-face quarries or pits from which stone, sand, gravel, or other materials are taken. The standard also points out that the safety precautions recommended are in the main applicable to stone "mining" operations.

Sections recommend the equipment to be supplied for the personal protection of employees; the physical conditions to be maintained; safety precautions for drilling and for storage, handling, transportation, and use of explosives. The section on explosives was developed and approved by a committee of the Institute of Makers of Explosives. Sections also make recommendations for transportation in quarries; for loading, conveying, and other equipment; for electrical equipment and for structures, walkways, and working surfaces. In addition, recommendations are included for hand tools; welding; fire prevention; and sanitation.

An appendix gives suggestions for safety organization and for accident investigation and records.

Copies of the American Standard Safety Procedures for Quarries, M28.1-1955, are available from the ASA at $1.50

---

ished, it would have done incalcuable good in the forwarding of safety in the quarry industry. In the approximate 15 years the project was under way, hundreds of persons in the industry were forced to give time and intense consideration to matters pertaining to safety that would never have been taken up if the strife brought out by the project had not occurred. And scores, probably hundreds, of executives now have a much clearer conception of quarry safety than they ever had before.

During the long period of work on the project many of the original provisions were discarded, many others were modified, and many new items were added. One of the oddities was the fact that in several instances the rejected provisions were actually placed in effect in plants having representatives at the meetings or in close touch with them. In many cases it developed that a procedure in successful and safe operation in many quarries would be utterly unfitted, and even very hazardous, at others, due to climatic conditions, rock structures, labor, or other features. This required much care in wording and even forced the rejection of some proposals of definite value at specific places.

The spectre of legislative adoption of material in the final printed pamphlet was always present, in fact it dominated. Legislatures would be sure to use the published draft and it was very desirable to have the wording "foolproof," as the lawyers who dominate legislative halls know practically nothing about safety in the quarry industry. This knowledge forced the committee to take utmost care in phrasing, and to attempt to make it feasible to lift entire passages from the pamphlet to place them in possible laws.

Under ASA procedures, standards are subject to review, and possible correction and revision, every few years. This procedure should certainly be invoked in connection with this standard to make sure that advances in the application of up-to-date measures and equipment in quarrying will be kept in effect.

A committee in the Mining Standards Board should be kept actively engaged in considering matters pertaining to the Safety Procedures for Quarries, keeping a record of its operation with special reference to defects in the code as well as omissions or advisable additions. Certainly, some of the proposed provisions which had to be omitted because of their controversial nature should be "ironed out" and ultimately included. Provisions involving use of explosives, electricity, machinery of various kinds, etc, should be kept current with up-to-date materials and practices. This is of real importance in protecting the industry in case of use of the code by legislatures, or legal action concerning accidents or health of employees.

Ultimately, it may be advisable to include in the standard matters pertaining to industries similar to quarries, but now excluded for various reasons, some of them technical. The standard is certain to have a beneficial effect on safety and health in surface mining as well as in quarries and it is desirable that the benefits be extended to all operations of a mining nature carried out on the surface even though such inclusion may entail some difficulty in formulating the recommendations.

Surface mining operations have problems very much in common, even though the product is different. A standard such as the Safety Procedures for Quarries could be made applicable to all mining operations confined to the surface although numerous different problems are encountered and would in some cases be difficult to handle. Even so, in time they may be included, at least in part, in the standard.

In my opinion the committee and ASA have done a very "good job" in completing the project, and I am well pleased to have helped, at least to some extent, in the early days of the project.

Hotels Will Save With *Textile Standards*

PERFORMANCE requirements for textiles used by hotels, hospitals, and other institutions, recently approved as American Standard, present "a possible revolutionary approach to the problem of purchasing for hotels and other institutions." Clifford R. Gillam, Manager, The Inn, Buck Hill Falls, Pa., chairman of ASA Sectional Committee L24 that developed the standards, made this statement in announcing their approval.

For the first time in the institutional textile field, a minimum level of quality based on end use performance is available in specific terms for those who may wish to make use of the American Standards for Institutional Textiles, L24, Mr Gillam declared.

The American Hotel Association sponsored the work. The new AHA *Hotel Textile Purchasing Guide*, which contains a full explanation of the standards, was presented at the Conference of Hotel Association Presidents and Secretaries in Chicago, April 5.

The L24 standards outline the minimum performance requirements for textiles for different uses and provide tests for checking the performance of specific textiles. (For specific titles and publication information, see page 127.)

Pictured on this page are the subcommittee chairmen who headed work on L24.

Clifford R. Gillam

John K. Odin
The House of Prints, New York
(Chairman, Furnishings)

". . . the buyer and seller of decorative fabrics now have a quality reference point or yardstick with which to measure performance."

Cameron Baker
U. S. Testing Company
(Chairman, Technical and Editorial)

"Our work becomes more understandable and useful to the ultimate consumer for whom it is designed."

M. S. Hymans
President, H. W. Baker Linen Company, New York
(Chairman, Utility Textiles)

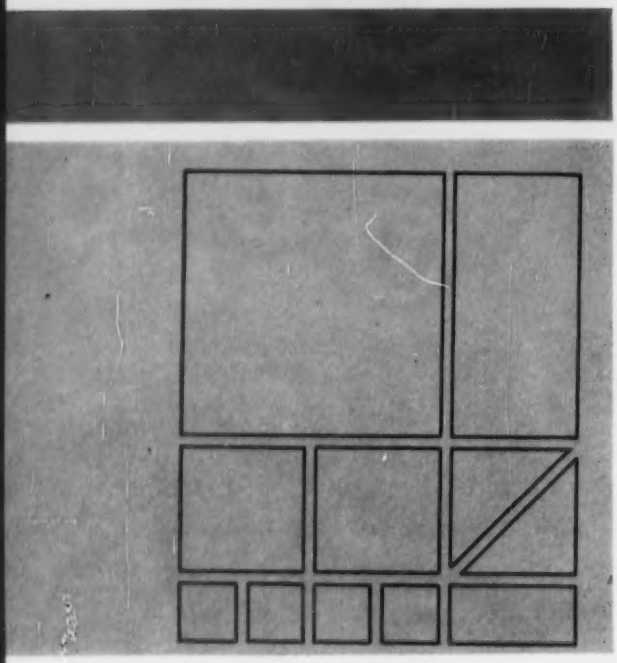
". . . should remove for all time the frustrations suffered by institutions and reputable suppliers, alike —whose long experience proved price alone was a completely misleading yardstick of value—but who had no other basis of comparison."

Charles E. Humphrey
Treasurer, Institute of Industrial Launderers, Detroit
(Chairman, Work Clothes)

"No longer is a purchaser in a position of buying just pants or coveralls. He now has a yardstick with which to measure and compare quality in terms of end use performance."

Alfred Silverman
Executive Vice-President, Angelica Uniform Company, St Louis
(Chairman, Uniforms)

"To the manufacturer whose standards equal or exceed those set out in L24, it will create a feeling of confidence in his line and, naturally, a degree of satisfaction in receiving authoritative approval of his product."



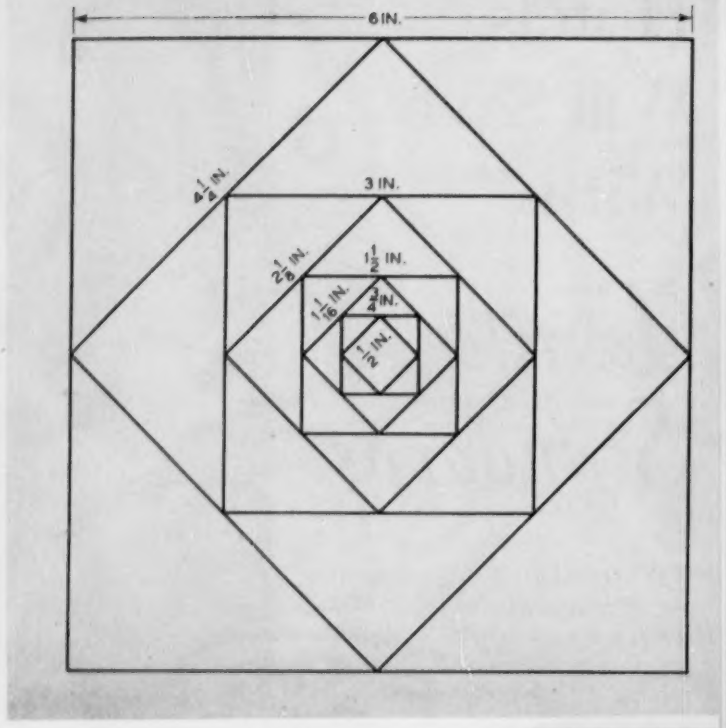


FIGURE 1
Basis of sizes for common square-shaped tile

FIGURE 2
Tile sizes must permit constant joint width in a great variety of patterns

Clay Tile Sizes Have Always Been Modular

by J. V. FITZGERALD
Tile Council of America Research Center
School of Ceramics, Rutgers University
New Brunswick, New Jersey

Abstract

The modular basis for clay tile sizes is explained in detail in this article. It is shown that tile sizes have always been geometrically related to each other. This is in contrast to the relatively recent modular dimensions for other building materials which are linearly related. Nevertheless, the widespread adoption of the 4-inch module by the building industry in general will improve tile installations. Although many different tile sizes can be derived from the geometrical relations presented herein, all are not necessarily commercially available. The purpose of the article is to present the scientific or rational design basis for tile sizes and not to list standard sizes which may or may not differ because of practical considerations.

Dimensional Coordination Recognized by Tile Manufacturers Years Ago

The question is frequently asked, "How do clay tile fit into the new modular coordination movement in the building industry?" Sometimes the matter is discussed from a cost point of view and the tremendous cost of changing dies, packaging cartons, and preparing sales litera-

Tile Council of America

ture is cited, based on the erroneous assumption that tile are not modular and that a change in size would achieve something or other. This article explains how tile always have been modular. It also discusses the rational design basis for the presently accepted dimensional coordination of tile.

According to American Standard A62.1-1945 "dimensional coordination is a relationship between the sizes and dimensions of building parts that will permit their assembly during field erection." This relatively new concept for building materials is in fact an ancient one for clay tile. Economics demanded long ago that tile be in sizes simply related to one another so they may be easily assembled on the job.

The ceramic tile industry both here and abroad recognized the importance of dimensional coordination many decades before Albert F. Bemis in 1936 published his momentous third volume, *The Evolving Home,* and thereby gave impetus to this proposition for building in general.

Tile Are Modular

The many sizes of tile have been standardized for years and are related to carefully chosen modules. For example, common sizes of glazed wall tile bear a simple geometrical relationship to a basic square or "module" as a unit of measure in order that they fit together in a great variety of patterns. The relationship can be expressed as follows:

$$x_n = \frac{A}{(\sqrt{2})^n}$$

where x_n = size of any given title
n = 0, 1, 2 or any small numerical integer
A = size of basic tile or "module"

In the United States A is 6 inches, therefore common tile sizes go as follows:

where $n = 0$ $x_n = 6$ inches
where $n = 1$ $x_n = 4\frac{1}{4}$ inches
where $n = 2$ $x_n = 3$ inches

This relationship usually is shown diagramatically as in Figure 1, copied from page 12 of *Earthen Floor and Wall Tile,* Report 141 of the United States Tariff Commission.

Sizes of tile larger than 6 inches are generally multiples of the smaller

inscribed squares in order to facilitate even joint setting when various sizes are combined. Of course, many other sizes such as 6 by 9 in. or 6 by 12 in. are also available from some companies.

Geometric Relationship for Ceramics

Ceramic mosaic tile are ordinarily mounted on 1 ft by 2 ft sheets in order to simplify the installation of a great variety of stock as well as special patterns and arrangements. These 1 ft by 2 ft sheets can be considered as a module for application to modular-sized walls and floors. In the factory, "ceramics" are placed in desired patterns on mounting boards with each tile separated from the others by metal strips. The tile are then glued to paper or fabric in these fixed positions. The width of the strips determines the joint width in the finished installation.

It has been found desirable for esthetic as well as for obvious practical reasons—such as being able to produce a large number of patterns from a few tile—to maintain a constant joint width. Therefore, the different sizes of tile are necessarily geometrically related to each other according to the following formula:

$$x_m = \frac{A-(2^m-1)J}{2^m}$$

where

x_m = size of any given title
m = small numerical integer
J = width of the tile joint
A = size of basic tile or "module"

Another way of expressing this series is as follows:

$$\begin{aligned} 2x_{m=1} + J &= A \\ 4x_{m=2} + 3J &= A \\ 8x_{m=3} + 7J &= A \\ 16x_{m=4} + 15J &= A \end{aligned}$$

For example, a typical series of tile sizes may have a basic size of 1.95 inches and a joint of 0.05 inches. Consequently the series of sizes is as follows (this particular series also conforms to the Bemis 4-in. modular system):

$$\begin{aligned} x_{m=0} &= 1.95 \\ x_{m=1} &= 0.95 \\ x_{m=2} &= 0.45 \end{aligned}$$

In addition to square tile, there are triangular, hexagonal, and other types as well as many trim shapes and sizes which also are geometrically related to a basic size. Moreover, the same relation may be used to determine sizes for large tile as well as ceramics.

This type of dimensionally coordinated tile sizes is illustrated in Figure 2.

As an additional example, a typical series of ceramic mosaic sizes may be as follows:

2-3/16 in. square
1-9/16 in. square
1-1/16 in. square
3/4 in. square
1/2 in. square
3/8 in. square

The two geometrical relations discussed in this and the preceding section are consistent with each other for m,n=0,2,4, . . . small even integers except for an approximate joint width subtracted from A_m.

Module for Other Building Materials

Committee A62 of the American Standards Association was organized in 1938 to coordinate the dimensions of building materials and equipment and is jointly sponsored by the American Institute of Architects, the Producers' Council, and the National Association of Homebuilders. Committee A62 has defined the standard module as a unit of 4 inches used as a standard dimensional increment.[1]

Business Week for August 8, 1953 says that "the modular program has come a long way. Architects are generally convinced it saves them drafting time and gives more time for better design. Manufacturers and dealers have generally come to appreciate the smaller inventories. To contractors it means less construction time." Thus has the building industry finally begun to recognize the value of dimensional coordination just as the tile industry had done many years previously.

Building materials which conform to the relatively new dimensional coordination based on the 4-inch module are linearly related in size to one another. American Standard A62.1-1945 requires for any one type of product that the differences between the dimensions in alternate sizes shall be multiples of the 4-inch module; the multiples being determined by practical requirements and economy. Dimensions of products are to be coordinated with a 4-inch grid pattern.

How Does Tile Differ From Other Building Materials?

The difference is fundamental and not readily amenable to conformity. Tile sizes are *geometrically* related to one another while sizes of other building materials are *linearly* related to one another. It will be shown below that little is gained at great expense by trying to impress a 4-inch module onto all tile sizes.

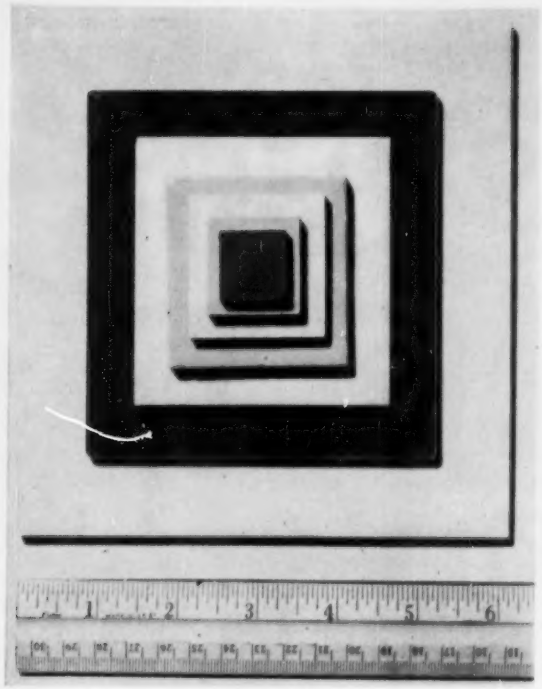
The geometrical relationships of tile were required as described previously in order to fit together readily many different sizes and also to maintain uniform joint sizes to achieve esthetically pleasing patterns as well as economy in manufacture. On the other hand, modular coordination for other building materials requires a common size factor in linear multiples so that they may be assembled with a minimum of fitting and waste.

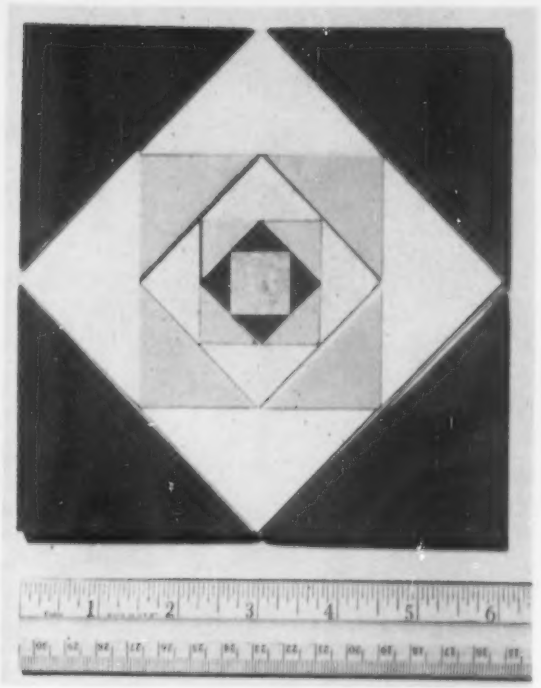
Why Not Adopt 4-Inch Module for Tile?

From the foregoing it is obvious that anyone who asks, "Why do not tile become modular?" simply is uninformed. Tile have always been modular.

In addition, anyone who asks, "Why doesn't tile adopt the 4-inch module?" also is uninformed; certain geometrical series of tile sizes used in 4-inch multiples can dupli-

[1] Sectional Committee A62 has developed four American Standards, two outlining the basis for coordination of dimensions, and two applying the principle to specific building products. These standards are: Basis for the Coordination of Dimensions of Building Materials and Equipment, A62.1-1945; Basis for the Coordination of Masonry, A62.2-1945; Sizes of Clay and Concrete Modular Masonry Units, A62.3-1946; and Sizes of Clay Flue Linings, A62.4-1947. An educational program carried out by the sponsors, the Producers' Council, the American Institute of Architects, and the National Association of Home Builders, has been instrumental in bringing about wide acceptance of the modular principle. During the past year, a series of round tables organized by *House and Home*, of which the American Standards Association was one of the sponsors, has helped to re-focus attention and interest in modular measure.





cate the linear sizes of other building materials. However, it is just as ridiculous to want all tile to conform to a 4-inch module as it is to want all the different designs and pictures on wall paper to conform to a 4-inch module.

There is another serious practical objection. Assume the simplest possible type of modular room. Now, when one wall is tiled, the two adjacent walls immediately become non-modular by just the amount of the thickness of the tile and setting bed. This obstacle, which is readily overcome by the tile layout specifier, is overcome only with difficulty by the modular-minded architectural draftsman.

New Modular Coordination Helps Tile

Nonetheless, it is most desirable to the tile industry to have modular walls and floors specified for receiving tile. Such walls, it is hoped, will necessarily have close tolerances. Therefore, the task of the tile layout man will be considerably simplified. Hitherto, tiles manufactured to tolerances of a few thousandths of an inch had to be fitted onto walls frequently not only out of plumb but also with tolerances of ± 1 or more inches.

It is the writer's opinion that in practically every home or building the most accurate construction from a dimensional point of view in the past has been the conventional mortar installation of the tile setter. His walls are invariably true and plumb as he corrects for irregularities in the wall backing by variations in the thickness of his mortar. His job will become much easier when walls and floors to receive his product begin to become more accurate, i.e., so he can abandon his leveling coat of mortar.

Prefabricated Tile Panels for Modular Walls

At its Research Center at Rutgers University in New Brunswick, N.J., the Tile Council of America has developed several different types of machines for prefabricating tile in large sheets or panels. Individual ceramic tile are bonded edge to edge with strong plastics. These sheets not only can be held to predetermined close tolerances but also can be easily sawed or drilled on the job.

One of the promising schemes evolved for minimizing the human element in wall dimensions and placement of outlets is to use templates—one as a guide for the carpenters for each wall on the job and an identical one as a guide for tile setters in the prefabrication shop.

The Research Center has actually installed several entire bathrooms on an experimental basis, using only four panels for the walls. For example, 5-ft wide panels were easily installed with adhesives over the tubs at one end of standard modular 5 ft by 7 ft bathrooms.

On a similar experimental basis the Tile Research Center has developed a ceramic mosaic flooring unit or module, 12 in. by 12 in. (Marquet flooring), which is installed in the same manner as are vinyl, rubber, and asphalt tile.

These new developments are strictly experimental. Patents have been applied for to cover panels and processes of making them. The panels and flooring units are not yet available commercially. However, one of the problems standing in the way of availability is the question whether a large market of modular walls and floors, with close tolerances, is assured to receive them.

How new code identifies Projection Lamps

by S. David Hoffman *and* R. P. Woolery

IF you've ever had trouble getting a replacement lamp for your movie or slide projector, you will understand why an American Standard Code has been established for designating and identifying lamps used in projectors and other photographic equipment.

Manufacturers of these lamps offer a multiplicity of types with the same wattage rating. This has caused a problem for lamp users — one flagrant example, more than 10 separate and distinct models of "300-watt projection lamps." (See Figure A.)

The illustration shows that these various models have different bases, different bulb sizes, and some have "black tops." It is also apparent that several models appear identical to the layman. *Yet all these lamps are marked with the same label.* (See Figure B.)

Even when you walk into your retail supplier with the old lamp in your hand and request "One like this . . .," you still have to depend upon the knowledge and integrity of the seller to supply the proper replacement for your equipment.

Lamp manufacturers have recognized the need for a better identification system for some time. Finally, early in 1955, using the facilities of the American Standards Association, General Electric Company initiated cooperative discussions among the four manufacturers producing movie or slide projector lamps. Their purpose was to develop a system for specifically labelling and identifying

Mr Hoffman, Electrical Engineer of the American Standards Association, is secretary of Sectional Committee C78 on Electric Lamps. The lamp identification system described in this article was developed under the auspices of this committee. Mr Hoffman is secretary of the Electrical Standards Board of ASA, and assistant secretary of the United States National Committee of the International Electrotechnical Commission.

Mr Woolery, Specialist—Pricing and Product Specification, Photo Lamp Product Planning, General Electric Company, was the prime mover in initiating this project and served as a member of the special subcommittee which drafted the proposal.

FIGURE B. *All 14 different types, sizes, and styles of "300-watt projection lamps" were marked exactly the same before adoption of the American Standard Code.*

FIGURE C. *Marking according to the new Code will identify each size and style of projection lamp with a different three-letter designation, for example, CXY above.*

each type of projection lamp, sound reproducer lamp, and other related tyes of lamps for photographic use.

At the first meeting it was decided that a good lamp identification system should fulfill the following requirements:

1. Provide easy lamp identification, by labelling the lamp with a prominent, simple designation which gives complete ordering information.

2. Be adaptable to present methods with no increase in manufacturing problems.

3. Have flexibility so as to be capable of encompassing all existing lamps of this category, and leaving ample room for any which may be produced in the foreseeable future.

Though general agreement was arrived at on the above points, a great deal of discussion centered around whether the lamp designation symbols should employ a meaningful code, or whether the code should have no significance without the use of a key sheet. The staff of ASA was particularly vigorous in proposing that a non-meaningful code be used, since it has been their experience through application of several of these systems that wherever symbols, letters, or numbers are used which tell something about the product, the system soon becomes so complicated as to be unworkable, or nearly so.

Some of the manufacturers advanced very strong arguments in favor of having a system at least par-

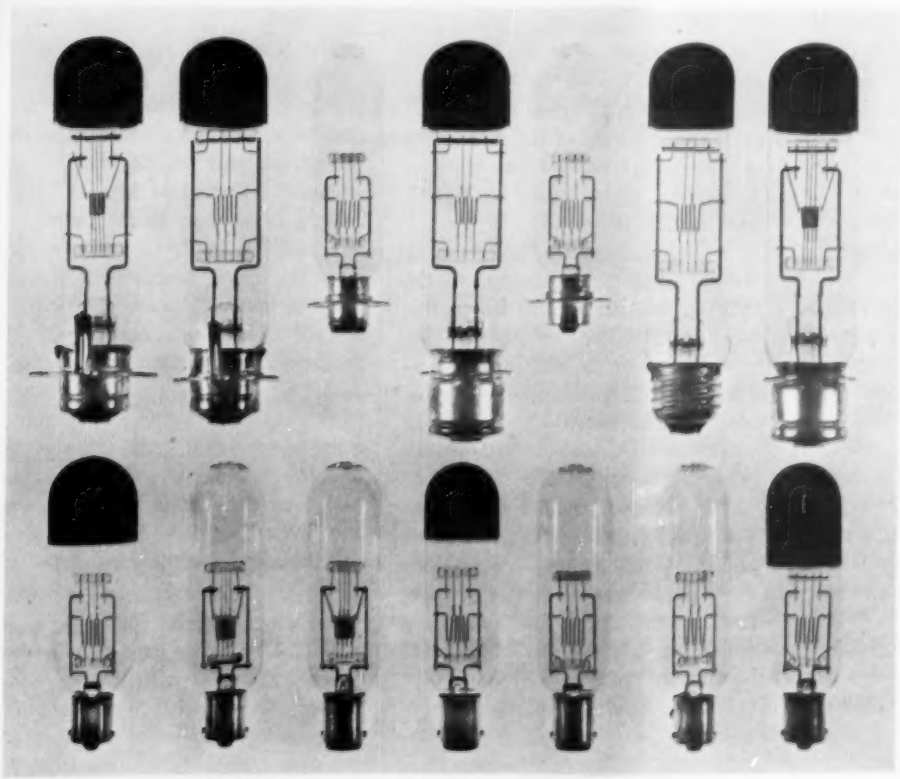


FIGURE A. *Fourteen different types of "300-watt projection lamps" are in different sizes and styles, not interchangeable.*

Before the Code, container for projection lamps was marked as shown at left. Following the new Code, the container shows three-letter identification (DGS). Identification formerly used by manufacturer is included on box for interim period but will be discarded later.

tially significant. This was based on their feeling that at least the wattage of the lamp should be indicated on the lamp itself. The arguments counter to this proposition were based on the fact that time and again designation systems employing a meaningful code are broken down, resulting in designations that are longer and much more confusing than those without meaning other than for pure identification. The real base of this difficulty is that while voltage and wattage may be vital today, no one can foresee what lamp characteristics will be of importance in the future. In particular, it was noted that the more significance a system has the more difficult it becomes for the administering organization to make assignments, and the more possibility there is of conflicts between manufacturers who may possibly believe that they held a pre-emptive right, because of commercial and sales considerations, to a particular designation.

This argument was finally resolved in the following manner:

1. A non-significant symbol will be marked on the lamp to designate completely each individual type.

2. This designation will be composed of three letters of the alphabet. However, the letters I, O, Q, and U will not be used in order to avoid possible conflict and ambiguity. (In this regard, American Telephone and Telegraph's experience has shown it is best to discard these four letters for any stamping or marking purposes, because of the possibility of their being confused with others.) This system allows a total of 10, 658 combinations.

3. Wattage, voltage, and burning position may be indicated on the bulb at the discretion of the manufacturer concerned.

4. This system will be administered through the American Standards Association, which will assign the codes, and keep complete records of the operation.

An administrative problem was anticipated when a lamp which is already coded is improved in some way that changes a specification. Here it was decided that the existing code designation of the lamp should be used for the improved lamp, providing the new lamp is interchangeable with the old in equipment. Similarly, when different manufacturers offer slightly different designs in lamps which each feels are commercially interchangeable, the same code will be used, even though certain requirements of the specification may be at variance.

Accordingly, a standard has been written which includes an explanation of the code, the procedure to be followed by ASA in assigning and recording the code, a sample of the lamp code request form which is filed by the manufacturer at the time he brings out a new product, and material to be used by the ASA staff in determining general classifications of bulbs, bases, and filaments.

In the ASA's administration of this system, it will adopt a punched card system which uses one card for each lamp code assigned and recorded. The holes are arranged around the edge of the card, which make the card mechanically articulate. The use of these cards and associated equipment will greatly simplify administration, and make it possible to determine in short order whether the lamp is coded by characteristics and is already recorded, or if not, whether there is an existing lamp of somewhat similar characteristics.

The fruition of this work will be observed in the next few months—purchasers of projection lamps will find these new three-letter codes on the carton and on the lamp. (See Figure C.) From that time on, when a lamp burns out, all the customer has to do is to go to wherever he buys his lamps, and ask for a new lamp by the code, much as he would ask for a radio tube, and he will get the proper replacement for his equipment.

It is understood that photographic equipment manufacturers are planing to incorporate, on the name plates of their products, codes for the proper lamps to be used. This will certainly help the user.

In American Standard Code for the Designation of Photo Lamps, C78.370-1956, we have another example of the benefits to the consumer which accrue from industry cooperation under the auspices of the American Standards Association.

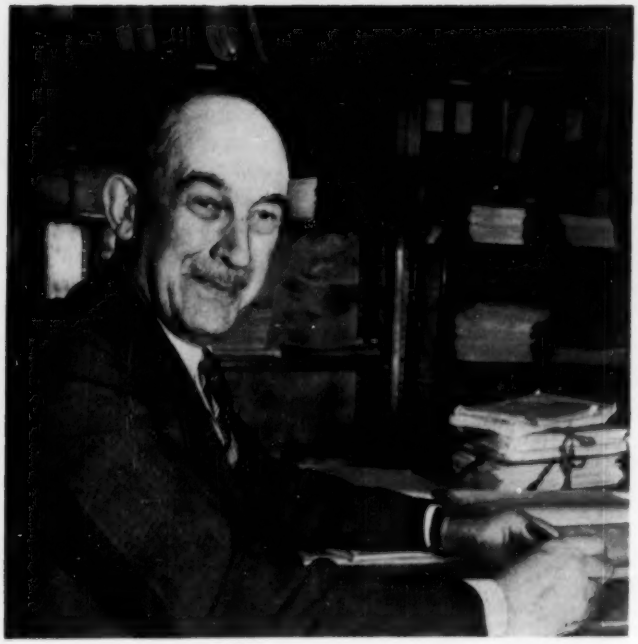
There are two kinds of knowledge.

One is to know a thing.

The other is to know where to learn it.

—Old Chinese Proverb

ABOVE: *ASA's library has most complete source of standards information in U. S. Miss Hertha Weigman, librarian, finds quick answers for those who need them.*



LEFT: *Eugene Somoff, multi-lingual technical service engineer, has information on foreign standards and related material valuable to industry at his finger-tips.*

Try The ASA Library First

ON November 23, 1955, an engineer of a large oil company with offices on Madison Avenue, New York, had to know in a hurry whether the British standard method for testing the autogenous ignition temperatures for petroleum products differed from the methods applied in the United States.

He cabled his London office for the British Standard. The British engineer on the other end of the line could not give the information off hand, but he could tell his American colleague where to find it immediately. He told him to call the library of the American Standards Association at 70 East 45 Street, New York—three blocks away from where the American engineer was telephoning.

This is not an isolated example. Many inquiries reach the ASA library in a roundabout way, although not often by such a long detour as London, England. Many people seeking information about standards try every other possible source first, before turning to, or being referred to, the one source that most likely will be able to help them—the ASA library. The New York Public Library, for instance, with one of the most complete information services in the world, refers questions on foreign standards to ASA. If the British Information Service in New York is consulted about British Standards, it advises the questioner to call ASA.

Many of the inquiries that reach the ASA library only after detours come from people whose companies,

or trade or professional organizations, are ASA members. It is, therefore, surprising that they do not turn to ASA first. The oil company whose engineer telephoned to London, for instance, is an ASA member through its trade organization, the American Petroleum Institute. About 75 American Standards have been approved in the petroleum field. The oil engineer knew this, and he also knew that an American Standard existed for those test methods with which he was concerned. But it did not occur to him that ASA would know what the equivalent British Standard was.

Under pressure of time it is not always possible to know immediately where to look for the best source of information. However, there is one method of avoiding costly and time-consuming detours—that is, by establishing a regular channel of information gathering.

Most large and medium-size companies have their own libraries today, containing reference books needed most frequently in their particular businesses. But these libraries usually have a second, even more important function — to obtain reference books and information from outside sources. Every member of ASA has readily available to it a comprehensive and up-to-date library on standards. All it needs to do is put a cross reference in the company library under "St," reading, "Standards, call American Standards Association."

Company departments, such as engineering, purchasing, sales, and export, often maintain their own small "libraries" of reference books and files. Here, again, all that is needed in order to be informed on standards is the cross reference — "Standards, call American Standards Association."

Eugene Somoff, technical service engineer, and Miss Hertha Weigman, librarian, are in charge of the information services of the library.

Information on standards is given by mail or telephone or to personal callers. ASA members may borrow most of the standards on file for reference, for copying, or for photostating. Members and non-members can buy copies or photostats of most standards at a small fee. Translation service is available for the titles and scopes of most foreign language standards. If complete translation of a foreign standard is wanted, a reliable commercial translation service should be contacted.

The ASA library contains more than 75,000 American and foreign language standards, specifications, and related material, as well as a file of technical literature. It is the most complete source of information on standards in the United States.

In addition to the approximately 1,500 American Standards, ASA can provide information on practically every important standard developed in the United States by private national organizations and by Federal Government agencies, including the Department of Defense and the Federal Supply Service, which is responsible for Federal Specifications. ASA also files the most important documents of state regulatory bodies concerned with safety.

All you have to do to be well informed on standards is to have a reference under "St" in your company library or on your bookshelf behind your desk, saying—"Standards—Call American Standards Association."

The Library of Standards of the American Standards Association is located in the Grand Central Terminal Building, Room 2845, 70 East 45 Street, New York City, Telephone MUrray Hill 3-3058.

ASA is sales agent for the published standards of 40 other nations, having on file about 55,000 foreign standards. These include about 9,670 German, 8,000 French, 2,800 British, about 2,400 of the total number of over 8,400 Russian standards listed, about 6,500 Polish, 6,000 Czechoslovakian, and 1,500 Japanese Standards, among others.

The foreign section of the ASA library has taken on increasing significance since World War II. American defense commitments abroad have brought American engineering and production methods in close contact with methods of other countries. Exports and imports of the United States are about four times as high now as they were in 1939.

Wherever American engineering methods and products are exported, the problem of standards may arise. Many exports do not take place because of insufficient knowledge of foreign standards and government specifications. Exporting without observation of foreign standards may become a costly venture for the shipper. American engineering projects in other countries may run into serious snags without proper coordination of standards. Foreign standards exceed by far in number and complexity the total of the languages and dialects spoken throughout the world. The ASA library can act as interpreter for this Babel of standards.

But, even on the American scene, the world of standards is far from simple or standardized. Most trades and industries and many government agencies have been writing standards throughout the last 50 years. Many of these standards have only a limited application within a particular sector of our economy. Other standards may duplicate each other, overlap, or differ in details. A number of organizations, such as the American Society for Testing Materials and the National Electrical Manufacturers Association, have developed a comprehensive set of standards of nationwide application in their fields. Many of these organizations' standards are also American Standards.

The American Standards Association is the clearinghouse for national and international standards. The ASA staff can help answer questions on WHO wrote them; WHEN and WHY; WHERE do they apply; and WHAT do they contain.

Members of ASA can share this information at any time they wish, if they will only remember to make that short cross reference to the Library of Standards in their own libraries or on their own bookshelves.

Better still, they can write ASA for a copy of the booklet describing ASA's library service and can file it under "ST"—Standards.

Ah, to be in Cleveland—

Company Member Conference Features Workshops at Spring Meeting

COMPANY representatives who attend the Spring Meeting of the Company Member Conference at Cleveland May 14 and 15 will have an opportunity to take part in their choice of a number of workshop sessions. Four workshops and two panels for discussion of standards problems will be features of the meeting, which is to be held at the Manger Hotel in Cleveland, Ohio.

A paper on Standardization by Punch Card Methods will be presented by A. H. King, International Business Machines, Poughkeepsie, N. Y.

Subjects to be discussed and leaders of the panels are shown in the preliminary program below. Panel members will be announced later.

May 14

Monday A. M. — What Makes Standards Tick? *Panel discussion led by Roy P. Trowbridge, General Motors Corporation, Detroit, Mich.*

Luncheon

Monday P. M. — Four concurrent workshops—

Evaluation of a Company Standards Program. *Led by E. Philip Kron, Eastman Kodak Company, Rochester, N. Y.*

Numbering Systems. *Led by F. O. Smeltz, Allis-Chalmers Manufacturing Company, Milwaukee, Wisc.*

Why Don't We Develop a Standard on . . . . ? *Led by J. W. McNair, American Standards Association, New York.*

Significance of the New American Standard on Limits and Fits for Cylindrical Parts. *Led by J. R. Welshman, Grinell Company, Providence, R. I.*

May 15

Tuesday A. M. — Standardization by Punch Card Methods. *By A. H. King, International Business Machines, Poughkeepsie, N. Y.*

Panel—Reproduction and Distribution of Company Standards. *Led by S. H. Watson, Radio Corporation of America, Camden, N. J.*

Luncheon

Tuesday P. M. — Choice of Plant Tours

H. C. Erdman, National Screw and Manufacturing Company, and P. C. Haar, Warner and Swasey Company, are acting at the local Arrangements Committee for the meeting.

The Company Member Conference is the group through which representatives of companies that are members of the American Standards Association can exchange views on standards problems. Through the Conference they express to ASA the companies' needs in relation to national standards and their problems with existing American Standards. Any company member can name a representative to the Conference.

Shock Tests Reproducible with Standard Machine

by RUDOLPH GAREAU

Mr Gareau, Bureau of Ships, U.S. Navy Department, was chairman of the Writing Group on Class HI Shock-Testing Machine for Lightweight Equipment of Sectional Committee Z24. He is shown here at an exhibit of the Sixth National Conference on Standards.

In addition to the writing group which developed the lightweight high-impact shock testing machine, the Z24 Sectional Committee presently has 39 working projects under its wing. Two of these are working on other shock-testing machines. These are specifically a shock testing machine for electronic components, and a variable duration lightweight shock testing machine. In addition, the Z24 Committee has the following projects working on associated subjects:

Revision of Shock and Vibration Terminology, Z24.1a
Pickups for Measurement of Shock and Vibration
Calibration of Shock and Vibration Measuring Instruments
Auxiliary Equipment for Shock and Vibration Measurement
Vibration-Testing Machines
Vibration Isolators
Techniques of Vibration Measurement
Reduction of Shock and Vibration Data

Material Laboratory of the New York Naval Shipyard

Over-all view of Class HI (High-Impact) Shock-Testing Machine for Lightweight Equipment.

AT the very beginning of World War II, it became apparent that equipment aboard naval vessels had to be ruggedized in order to hold up under severe mechanical shock loading experienced in service. These shock loadings were caused by the detonations of mines, aerial bombs, or other explosives in the immediate vicinity of the vessels.

The British, as early as 1940, developed and built a shock-testing device for improving the shock resistance of their shipborne equipment. The U.S. Navy, faced with the same problem of ruggedizing their equipment, adopted the British shock-testing machine design.

The use of this machine spread to other branches of the Armed Forces. The Signal Corps uses it for shock-testing communications equipment intended for use in airplanes or ground equipment. It has been used also to ruggedize equipment installed in Army tanks.

Commercial companies have found it a necessary device for developing shock-resistant equipment in accordance with military specifications. They have also used it in connection with the development of equipment capable of withstanding the mechanical shocks that occur during transportation and handling of the equipment.

By the end of 1953, about 40 of these machines were in operation in government or commercial establishments. The construction plans for the machine had been modified to provide greater consistency in the shock magnitudes as well as to substitute certain structural channels which were no longer available.

At this time, the ASA Sectional Committee Z24 began to study the possibilities of standardizing the various types of shock-testing devices being used. In view of the widespread use of this machine and the fact that its design had become stabilized, the sectional committee decided that it would be appropriate to prepare an American Standard.

The group concerned with the draft of this standard was composed of members from government as well as commercial establishments. The standard is concerned, in particular, with the construction, operation, and maintenance of the shock-testing machine. It was agreed from the beginning that shock-testing machines built to the same plans and operated and maintained under the same procedures should assure that shock tests performed on different machines are reasonably reproducible.

The standard has now been completed and approved by the American Standards Association as American Standard Specifications for the Design, Construction, and Operation of Class HI (High-Impact) Shock-Testing Machine for Lightweight Equipment, Z24.17-1955.

Sidelights on the Shock-Testing Standard

When general use of wartime drawings and instructions for shock testing showed discrepancies in results, the American Standards Association was awarded a Navy contract and authorized to revise the drawings. The purpose was to assure that uniform machines (which would give reproducible results) could be constructed and operated anywhere. This work has been completed and made a part of the new American Standard Specification for the Design, Construction, and Operation of Class HI (High-Impact) Shock-Testing Machine for Lightweight Equipment. The revised drawings can be obtained from the American Standards Association.

The standard itself was developed following widespread peacetime use of the shock-testing equipment. It was found that test machines must be rebuilt frequently as a result of the strains to which they are subjected. The rebuilt machines often did not give the same results as before the rebuilding operation. A government inspector could easily be misled as to test results because of a seemingly minor change in the construction of the machine.

The Sectional Committee Z24 group to which the problem was assigned studied possible methods to be followed in developing the standard. It came to the conclusion that it was impossible to simulate all the actual shock conditions and actual motions that equipment undergoes in service. However, it found that reasonably satisfactory results could be obtained by building the testing equipment in such a way that it could be kept vibrating for a specified period of time. In other words, the committee decided to make an arbitrary choice of requirements since it is almost impossible to analyze motions so minutely that they can be standardized. The machine simulates shock motions that may be excited by impacts due to collisions; blasts due to explosions in air; or pressure pulses caused by underwater explosions. However, it does not simulate shocks repeated a large number of times, like those received when equipment is transported loosely in a truck; or shocks that are of minor intensity; or shocks that involve large velocity changes, such as those that occur in projectiles, missiles, and rockets, when they are launched.

The standard specifies methods of mounting in order that differences in mounting will not cause differences in test results and in order that the mounting itself will not absorb the shock.

When purchasers want the equipment they buy to be tested with the standard shock-testing machine, they should define the principal function of the equipment on their purchase orders as a guide to those who are to make the test.

The American Standard Specification for the Design, Construction, and Operation of Class HI (High-Impact) Shock-Testing Machine for Lightweight Equipment, Z24.17-1955, can be obtained from the American Standards Association at $1.00 per copy. The drawings showing details of the testing machine are also available from the American Standards Association. A complete set of 19 drawings can be obtained at $25.00.

USA presents views in

International Work on Textiles

FIFTEEN delegates will represent the United States at the meeting of Technical Committee 38 on Textiles of the International Organization for Standardization at Southport, England, May 11-14. Subcommittee 5 on Yarn Testing and Subcommittee 6 on Fiber Testing (with Special Reference to Man-Made Fibers) are also meeting at Southport.

Leader of the USA delegation is William D. Appel, chief, Textile Section, Organic and Fibrous Materials Division, National Bureau of Standards.

A number of proposed methods of test will be taken up at the meeting of Subcommittee 5, including tests for determination of mean linear density; determination of breaking load and breaking elongation; and determination of twist. It is expected that the subcommittee will approve the recommendations and pass them along for action by the ISO Technical Committee at its plenary session. The American Standards Association holds the secretariat for Subcommittee 5.

Proposals for testing cotton fibers will be among the principal subjects for discussion at the meeting of Subcommittee 6 on Fiber Testing. Twelve methods of test, based on methods approved by the American Society for Testing Materials, have been submitted by Sectional Committee L23, the USA Committee for ISO/TC 38. Committee L23 has pointed out that cotton is one of the largest items of international trade and that development of test methods for international use is inevitable, if not by ISO, by some other organization. Committee L23 favors the assignment of this work to a separate subcommittee to speed the development of practical ISO test methods for commercial use.

In addition to work on cotton fiber testing proposed by the USA, Technical Committee 38 has two proposals for new work to consider at its plenary session. These are for methods of test for waterproofness, proposed by the United Kingdom, and method of designating yarn structure, proposed by the USA.

The plenary session will have for consideration 24 test methods for colorfastness. These have been published in the *American Dyestuff Reporter*, March, 1956, from the Proceedings of the American Association of Textile Chemists and Colorists.

It will also have for consideration a draft proposal on atmospheric standards; a Universal yarn count system proposed by the USA; and proposals on analysis of fiber mixtures; definitions and nomenclature; cloth strength testing; calculation of commercial weight of textiles; and methods of measurement of cloth length, width, and area.

Each of the subcommittees will report on the status of their work and submit proposed recommendations that they have completed for approval by the Technical Committee. These subcommittees cover colorfastness tests; shrinkage of fabrics in washing; systematic reduction of number of cloth widths; systematic reduction of number of yarn counts; yarn testing; fiber testing; and ropes and cordage.

In addition to Mr Appel, the USA delegation includes the following:

T. L. W. Bailey, Jr, Cotton Technologist, Cotton Division, Foreign Agricultural Service, U. S. Department of Agriculture

Dr Earl E. Berkley, Director, Acco Fiber and Spinning Laboratory, Anderson, Clayton & Company, Houston, Texas

George S. Buck, Jr, Technical Director, National Cotton Council of America, Washington, D. C.

Louis A. Fiori, In Charge of the Fiber and Fabric Properties Unit, Cotton Mechanical Processing Section, Southern Utilization Research Branch, Agricultural Research Service, U.S. Department of Agriculture, New Orleans, La.

Otto Goedecke, President, Otto Goedecke Corporation, Hallettsville, Texas

Joel F. Hembree, Director, Cotton Merchandising Research, Cotton Research Committee of Texas, Austin, Texas

Dr K. L. Hertel, Director, Fiber Research Laboratory, The University of Tennessee, Knoxville, Tennessee.

C. E. Hilton, American Standards Association, New York

Professor William A. Newel, Research Coordinator, School of Textiles, North Carolina State College, Raleigh, North Carolina

George W. Pfeiffenberger, National Cotton Council, Memphis, Tennessee

Dr Arthur G. Scroggie, Manager, Characterization Laboratory, Textile Research Laboratory, E. I. duPont de Nemours & Company, Inc, Wilmington, Delaware

Professor B. L. Whittier, School of Textiles, North Carolina State College, Raleigh, North Carolina

William I. Wilt, General Manager, Standard Production Instrument Division, The Sheffield Corporation, Dayton, Ohio

Dr John W. Wright, Chief, Standards and Testing Branch, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C.

E. T. Pickard, Kent, Connecticut, and A. L. Vandergriff, vice-president in charge of engineering, Lummus Cotton Gin Company, Columbus, Georgia, are attending the meetings as observers.

What Is Your Question?

Are there any American Standards that have to do with the classification of color?

Sectional Committee Z58 has prepared a number of American Standards on color, several of them highly scientific and basic in nature. These are: Nomenclature and Definitions in the Field of Colorimetry, Z58.1.2-1952; Method of Spectrophotometric Measurement for Color, Z58.7.1-1951; Method for Determination of Color Specifications, Z58.7.2-1951; and Alternative Methods for Expressing Color Specifications, Z58.7.3-1951.

Are there any standards to guide in the use of color in painting machinery and walls inside a factory?

Three American Standards may be applicable. One of these is the American Standard on Gray Finishes for Industrial Apparatus and Equipment, Z55.1-1950. This specifies and identifies four shades of gray for use on factory equipment. Color chips representing these four shades of gray are available with the standard.

The American Standard Scheme for Identification of Piping Systems, A13.1-1956, is intended to harmonize all specifications for the identification of materials conveyed in piping systems.

The American Standard Safety Color Code for Marking Physical Hazards and the Identification of Certain Equipment, Z53.1-1953, recommends and defines the colors to be used for marking hazardous locations, calling attention to safety equipment, and identifying fire equipment and other protective equipment.

In addition to these American Standards, several of the paint manufacturers have developed schemes, although not standards, for using color in factories and on equipment.

Gaillard Seminar on Industrial Standardization

New York, June, 1956

The next five-day Gaillard Seminar on Industrial Standardization will be held from June 18 through 22, 1956, in the Engineering Societies Building, New York City. Three full days will be devoted to organization and procedure of company standardization, including round-table discussion of problems of special interest to those attending. The other two days will be spent on discussion of the principles and practical application of standardization as a technical and managerial function.

About three hundred men, representing 167 organizations, have attended previous sessions of the Gaillard Seminar which has been held twice a year since 1947.

For details and registration, write to Dr John Gaillard, 400 West 118 St, New York 27, N. Y. Formerly a member of the ASA staff and a lecturer at Columbia University, he is now a management counsel specializing in advice on standardization problems.

Your Nominations Are Invited

for the Standards Medal

for the Howard Coonley Medal

ALL members of the American Standards Association are invited to send in nominations for the 1955 recipients of the Howard Coonley Medal and the Standards Medal. Nominations should be in the hands of the Managing Director of the Association before June 30, 1955.

The Howard Coonley Medal is awarded each year to an executive who has rendered a great service in advancing the national economy through voluntary standardization. Recipients have been The Honorable Herbert Hoover, Mr Howard Coonley, Mr William Batt, Senator Ralph E. Flanders, Mr Thomas D. Jolly, and Dr Harold S. Osborne.

The Standards Medal is awarded to an individual who has shown leadership in the development and application of voluntary standards. It has been awarded to such well-known leaders in standardization as Frank O. Hoagland, Perry L. Houser, the late Dr P. G. Agnew, Dr John Gaillard, and James G. Morrow.

Nominations should be submitted in quadruplicate on plain paper without indication as to the source of the nomination. Each nomination should be accompanied by a letter of transmittal.

In order to provide complete and comparable data, forms can be obtained from ASA for filing nominations.

Are These Cases Work Injuries?

Rulings of the Committee on Interpretations are now being issued on whether unusual cases are to be counted as "work injuries" under the new edition of American Standard Z16.1-1954. Title of the standard is Method of Recording and Measuring Work Injury Experience. Sponsors of Committee Z16 are the National Safety Council and the Accident Prevention Department of the Association of Casualty and Surety Companies.

Case numbers in this new series start with 400. The cases below are the fourth installment in the series under the revised edition of the standard. The numbers in parentheses refer to the paragraphs in the standard to which the cases most closely apply.

An index is being prepared by the National Safety Council, arranged both numerically by case number and numerically by paragraph number of the standard. Each index reference will include a brief description of the case.

When the first 50 cases have been published, copies of the cases and the index will be made available at 50 cents per copy. Liberal discounts will be offered for quantity orders. Copies will be 8½ x 11 in. with margins for punching. Up-to-date indexes will be issued with each additional 50 cases.

CASE 431. (5.13)

An employee was standing on a scaffold where the scaffold plank extended about two feet beyond the support. Without thinking, the employee walked out toward the end of the scaffold. The scaffold board teetered beneath his weight, throwing him off the end. Righting himself while falling a distance of approximately ten feet, the employee landed on both his heels, with most of his weight, however, on his right heel. He was driven to the plant medical department. The doctor x-rayed the employee's foot, and the picture showed a fracture of the heel bone.

After x-raying the foot and keeping it in an ice bath for 24 hours, the doctor gave the following diagnosis: Definite fracture of the heel bone. This was an impact type of fracture similar to pushing in the end of an egg and causing several small cracks. However, because the bone was not displaced and excessive swelling had not occurred, the foot could be placed in a "walking cast." Because the foot was in a walking cast, the employee was permitted to return to light work (a regularly established job). The injury occurred Friday afternoon, and the employee returned to work on Monday. A question was raised as to whether this should be considered a disabling injury.

Decision: This should be considered a temporary total disability, and included in the work injury rates on the basis of the following statement included in the report: ". . . after x-raying the foot and keeping it in an ice bath for 24 hours." It appeared that this employee was under constant and confining treatment throughout the hours of his regular shift on the day following the injury, and was unable to work during that period. The fact that this was on a Saturday or Sunday did not change the situation in view of paragraph 1.2.4 of the standard.

CASE 432. (5.2)

An employee was hired on February 4, 1953, as a First Class Machinist. On April 15, 1954, he reported to the dispensary with a back pain. There was no report of any injury. The pain was attributed to a cold. The employee was 49 years old. The employee did tell the examining physician that he had had sciatic nerve trouble five years before coming to work with this company. On July 9, 1954, the employee failed to report to work after his vacation. He reported a back pain which he attributed to "catching cold while haying." He remained out of work until August 19, 1954, under nonoccupational disability insurance coverage and returned to work as authorized by his own physician and the company doctor. On April 12, 1955, the employee claimed he stooped to pick up a piece of stock, a hollow copper tube approximately 10 pounds in weight, and while lifting it waist high with the help of a co-worker, felt pain and had difficulty straightening up. The employee spent three weeks in the hospital under observation and on Wednesday, May 11, 1955, was operated on for a slipped disk. A recuperation period followed.

Decision: The back injury described does not meet all of the requirements of paragraph 5.2 of the standard, and therefore, it should not be included in the work injury rates.

CASE 433. (5.1)

An employee, while working at his regular occupation, suffered a hernia, apparently from being in an awkward position as he stepped off a platform approximately 12 inches high. At that time he felt a pain in his lower back and groin. The man did not trip, stumble, or fall, and neither did he have any objects in his hands at the time. This accident supposedly happened on January 10, but the man did not report it until January 22. However, because of the pain in his groin, on January 17 he went to a local doctor who diagnosed the injury as a lower left inguinal hernia. In the interim the employee did not lose any time from the job but continued to work. In fact, he worked through January 25, and after completing his day's work he was admitted to the local hospital and was operated on the morning of January 26. Following the operation he failed to regain consciousness and expired a few minutes later. In the opinion of the two attending doctors, death was caused by anoxia, due to an overdose of anesthetic agents. The death certificate denoted the cause of death as anoxia due to an overdose of anesthetic agents.

Decision: This hernia should not be included in the work injury rates on the basis that it did not meet the requirements of paragraph 5.1 of the standard.

CASE 434. (5.13)

On March 21 at about 9:10 A.M. Mrs P, a report clerk, slipped and fell while walking down the main corridor of the office floor to the women's locker area. A later examination of the scene showed the floor to be in good condition. The surface, which is asphalt tile, had not been waxed for over four weeks prior to the fall and did not appear to be slippery. It was assumed, however, that Mrs P was hurrying, as she was about ten minutes late for work when the slip occurred. Mrs P is a short and rather large woman who was about five months pregnant on March 21. The slip and resultant fall was probably caused by her physical condition and was not a condition of the work area.

Mrs P stated that she fell to her left knee and then apparently rolled, striking the area of her right hip against the floor. Three employees who heard but did not see the fall assisted her to a chair and attempted to compose her. Then, because of her pregnancy, a nurse from the company medical department was called to assist her to the medical office for further examination and rest.

Dr W of the company medical department diagnosed the injuries as contusion of the left knee and right hip area. She remained at the medical office for approximately 2½ hours of rest. After this she was escorted home by her husband. He was asked by Dr W to have his wife examined by her personal physician. The extent of the treatment recommended by the company doctor was bed rest. Mrs P returned to work with her doctor's approval on March 23, and was again sent home by the company medical department with instructions to rest and refrain from any strenuous activity for the remainder of the week. She returned to work on March 28, with the approval of Dr W.

Since there was no medical treatment other than first aid, the absence was necessitated solely as a precautionary measure against the possibility of a miscarriage. The employee, since the accident, had continued with a normal and uneventful pregnancy. The actual injuries, contusion of left knee and right hip area, were in reality slight and under other circumstances would have been treated and classified as a non-disabling medical treatment case.

Decision: This injury should be considered a temporary total disability and included in the work injury rates on the basis that there was no evidence to justify the exclusion of this case from the records because of either paragraph 5.4 or 5.13 of the standard.

CASE 435. (A1.6*f*)

An employee in Department A was assigned to use a wood saw in Department B for a short period of time. Two days

later, his supervisor requested him to proceed from Department A to a nearby restaurant to procure coffee for the supervisor and several others.

Department B was adjacent to the restaurant, and before going to the restaurant, the employee decided to enter Department B to search for his identification tag which he had lost, it being his thought that he might have lost it while working for the short period in Department B as stated above.

The employee entered Department B, but instead of proceeding directly to the saw area, went to the opposite side of the building and was injured, the injury causing time lost from work.

The following was believed important: (1) A replacement identification tag could have been easily procured. (2) The employee's personal keys were attached to the tag and it was believed that this was the real reason why the employee entered Department B on the day of the injury.

The question was whether or not this should be considered an industrial injury.
Decision: This injury should be included in the work injury rates as a temporary total disability on the basis that this employee had not taken himself out of his employment when he went in search of his identification tag even though he was at the same time looking for his personal keys.

CASE 436. (2.3.1.2)

Classification was requested of time charges involving loss of use of a body member as shown in paragraph 2.3.1.2 of the standard. An industrial injury involved the left index finger, with the doctor reporting the following losses: (1) 20 percent loss of flexion at distal joint; (2) 20 percent loss of flexion at middle joint.

Question 1. Should the 20 percent loss of flexion be considered 20 percent loss of use, or should it be converted to loss of use by some means such as the table set up by the Wisconsin Industrial Commission? This table converts as follows:

20 percent loss of flexion, distal joint—2 percent loss of use.
20 percent loss of flexion, middle joint—10 per cent loss of use.

Question 2. How many days time charge should be made in this case, and how was this determined?
Decision: The committee was of the opinion that the present standard does not provide any direct relationship between loss of flexion and loss of use. The committee also agreed that it could not rule on the exact relationship between percentage loss of flexion and percentage loss of use. Under the standard, the time charge should be based upon the doctor's evaluation of loss of *use*, which he should determine according to regular medical procedure and his own best judgment.

The committee felt that if the physician would not make an appraisal in terms of loss of use, the only alternative was to apply an arbitrary time charge. The members did not believe that it was within the authority of the committee to specify that the Wisconsin Rule or any other specific rule should be followed for converting from loss of flexion to loss of use.

CASE 437. (5.1)

A Transportation Department worker complained of a pain in the abdominal region to his foreman when he reported to work one evening. The next morning, upon visiting the plant physician, it was determined that the employee had sustained an inguinal hernia which would require surgery. The operation was performed and the employee was absent from work approximately three weeks. During investigation of the case, it was learned that the injury had occurred approximately 24 hours previous to the employee's reporting to his foreman. The employee stated that he was not sure when and how the accident occurred, but he remembered that while helping to lift a large drum he had slipped and felt a slight catch in his side. No severe pain was experienced and no report whatsoever was made at that time.
Decision: This injury should not be included in the work injury rates on the basis that it did not meet all of the requirements of paragraph 5.1.

CASE 438. (1.6)

At approximately 5:15 A. M., an employee experienced a severe injury to his left forearm while operating a power buffing machine in the plating and polishing department. The accident resulted in the subsequent loss of employee's left forearm.

The following was determined from an investigation conducted by the safety department: Injured employee was classified as a pipefitter and maintenance man. He was assigned to routine maintenance and repair of plant plumbing equipment on the third shift. According to the statement of the employee's immediate supervisor and the department leadman, the employee had been assigned to the repair of a gas heater. This assignment was issued through a direct telephone conversation with the employee approximately 20 minutes prior to the accident.

The first indication of the accident occurred when the injured employee approached another worker in the plating section adjacent to the polishing room and informed him that he had injured his left arm. A tourniquet was applied, and the employee was removed by ambulance to the hospital. Due to the severity of the injury the employee's left forearm could not be saved.

The employee was alone in the polishing room at the time of the accident. As closely as could be determined, the employee was operating a buffing machine while polishing an automobile headlight reflector rim against a cloth-type buffing wheel. The twisted and distorted headlight rim was found shortly after the accident in a paper and trash disposal sack located approximately 20 ft north of the buffing machine. The headlight rim, when examined, showed evidence of blood stains with an attached fragment of flesh. A pair of blood-stained leather-faced canvas back gloves were found in the plating room, approximately 50 ft south of the buffing machine. The right-hand glove had been placed under a work bench. The left-hand glove was found on top of the work bench. This glove was badly torn, with the cuff, thumb, and palm missing.

The buffing machine was restricted to the use of the polishing department employees, and there was a sign installed on the machine giving warning of this fact.

It was also determined during the investigation that neither the injured employee's immediate supervisor or the leadman had authorized or assigned the employee to operate the buffer, or that they had any prior knowledge of his intent to operate this equipment.
Decision: This injury should not be included in the work injury rates. The report did not state clearly who was the owner of the automobile headlight, or whether there was any possible connection between this man's employment and the buffing of the headlight, but the decision was made on the assumption that the headlight was the personal property of the employee who was injured, and that the polishing of this headlight had nothing whatsoever to do with this employment.

CASE 439. (1.2.4)

A Fire Department operated on the two platoon system, 24 hours on duty and 24 hours off duty. Except when answering fire alarm calls, the firemen were restricted to the immediate confines of the station. The tour of duty was from 8 A.M. to 8 A.M.

One of the firemen was playing handball while on duty and sustained a low back strain at 7:30 P.M. on June 23. The playing of handball was considered a part of the firemen's fitness training. At 1 P. M. on June 27 the fireman was given therapeutic lamp and heat to the back, medical treatment by the City Physician, and went off duty, due to the injury, for the balance of his tour of duty.

The City Physician did not see the man on his scheduled day off and did not know if he could have performed his regular assigned duties on June 28, his scheduled day off. The injured man reported for duty at the beginning of his next regular tour of duty, 8 A.M., June 29.

Question 1: Is a tour of duty from 8 A.M. to 8 A.M. considered one calendar day for computing accident frequency rates?

Question 2: Is it correct to count this a medical treatment case instead of a disabling injury?
Decision: The committee agreed that the present standard does not cover the situation where an employee works for a period of 24 hours and then is off for 24 hours. The committee decided as follows: (1) 8 A.M. of one day to 8 A.M. of the following day would be recognized as one calendar day. (2) If an employee was unable to work because of his injury for any 24-hour period after the end of the regular shift on which he was injured, it should be counted as a temporary total disability. The case in question should be counted as a temporary total disability because the doctor did not state that this employee could have worked on June 28.

FROM OTHER COUNTRIES

Members of the American Standards Association may borrow from the ASA Library copies of any of the following standards recently received from other countries. Orders may also be sent to the country of origin through the ASA office. Titles are given here in English, but documents are in the language of the country from which they were received. An asterisk * indicates that the standard is available in English as well. For the convenience of readers, the standards are listed under their general UDC classifications. In ordering copies of standards, please refer to the number following the title.

621.9 MACHINE TOOLS. TOOLS

Czechoslovakia (CSN)

8 stds for different grades of lubricating material
CSN 65-6911/2, -6915/6, -6918, -6946, -6965/6

5 stds for abrasive materials and tools
CSN 224010/4

Germany (DNA)

Concave milling cutters, 1.5 to 20 mm diameter DIN 855

Convex milling cutters, 1.6 to 20 mm diameter DIN 856

Single angle milling cutters, 40 deg., 60 deg. and 70 deg. DIN 1833

Corner rounding cutters, 1.5 to 20 mm diameter DIN 6513

Hammer mill for crushing hard materials
DIN 24116

Sieve testing DIN 4190, Bl.1, 2

India (ISI)

Specification for twist drills
IS 599—1954

The Netherlands (HCNN)

Lathe tools; dimensions of carbide tool tips V 2183

Poland

Control handwheels PN M-56151

Sockets for Morse tapered tool shanks
PN M-60552

Standard dimensions for 60 deg. countersunk hole PN M-02499

Steel sleeves with Morse taper shanks
PN M 55030, -55013, -60551

T-slots PN M-55091

Tool shanks and sleeves
PN M-55012, -19

Switzerland (VSM)

Handles for files VSM 34510

622 MINING

Australia (SAA)

Steel wire ropes for winding and haulage purposes in mines AS M.4—1955

Czechoslovakia (CSN)

7 stds for different details of drilling pipes
CSN 451060, -1101, -1110/2, -1120, -1390

France (AFNOR)

Rubber hose for mining compressed air tools NF M 82-270/1

Germany (DNA)

Miner's safety shoe DIN 23301

Articulated metal staple; bolts location
DIN 21534, Bl. 2

I-beam used in mining structures
DIN 21541, Bl. 1

10 stds for bucket chains and their parts
DIN 22267, Bl. 1-10

624 CIVIL ENGINEERING

Austria (ÖNA)

General rules for calculation of snow and ice loads on structures
ÖNORM B 4000, 4 Teil

Prefabricated reinforced concrete parts and their bearing capacity
ÖNORM B 4200, 5 Teil

Chile (INDITECNOR)

Standard modules INDITECNOR 53-2

Germany (DNA)

Rules for providing space for installation in houses of gas-, electricity meters, etc DIN 18012

Rules for poured light concrete walls in dwellings DIN 4232

Sheet metal form for pouring ribbed concrete ceiling DIN 4238

Rules for the use of an inside vibrator for packing cement DIN 4235

Several types of plain or reinforced concrete ceilings DIN 4237

Poland

Calculation of static strength of reinforced concrete structures
PN B-03260

Calculation of wind pressure on structures PN B-02011

625.1 RAILWAY CONSTRUCTION

Czechoslovakia (CSN)

Wooden sleepers of coniferous species for railroad tracks CSN 491413

6 stds for different parts of railroad car couplings CSN 280150/1, -3801/5

United Kingdom (BSI)

Flat bottom railway rails
BS 11: Part 1:1955

626 HYDRAULIC ENGINEERING

Germany (DNA)

Technical terminology, definitions and symbols pertaining to agricultural hydraulics DIN 4047

628.2 SEWERS

Germany (DNA)

9 stds for street level gratings
DIN 4293/9

Technical terminology, definitions, and symbols pertaining to sewers
DIN 4045

2 stds for sewerage purification installation DIN 19551/2

Egg-shaped cross-section clincker-brick sewer outlets
DIN 4051, Bl. 1, 2 & Beibl.

Cleaning plug of cast-iron draining tanks
DIN 539

Agitated sedimentation tank DIN 19553

Poland

8 stds for different fittings for domestic water pipes
PN M-75102/5, -75108/10, -75193

United Kingdom (BSI)

Manhole step irons (malleable cast iron)
1247:1955

628.9 ILLUMINATION

Illuminating appliances. Definitions, basic forms, and characteristics DIN 5040

629.11 LAND VEHICLES

Czechoslovakia (CSN)

31 stds for structural details of truck platforms and boxes
CSN 306401/6431

Germany (DNA)

Switch for hydraulic brake light
DIN 72759, Bl. 3

2 stds for coupling for airbrake hose
DIN 74299/300

Pneumatic tires for agricultural non-motorized carts DIN 7812

5 stds for ball joints DIN 71801/5

India (ISI)

3 stds for bicycle parts
IS 623, 625 and 626—1955

Japan (JISC)

5 stds for different hand trucks
JIS B 8901/5

Poland

Rubber-insulated automobile wires
PN E-90027/8

Different types of wheel rims for automobiles PN S-91243

629.12 SHIPBUILDING

Czechoslovakia (CSN)

6 stds for different types of single, double and cross bollards
CSN series 3228 . . .

Germany (DNA)

Square socket wrench for fire line valves
DIN 87313

29 stds for details of tubular remote control gear of valves, etc, on shipboard
DIN 87020/2; 87340/2; 87346, Bl. 1, 21; 87349, Bl. 1, 2; 87358/70

Japan (JISC)

Steel ladder (ships) JIS F 2601/2

2 types of handrail stays JIS F 2604/5

Bulkhead lamp JIS F 8416

Bedlamp JIS F 8420

Chart lamp JIS F 8421

Two types of electric wiring junction boxes JIS F 8821/2

629.13 AIRCRAFT ENGINEERING

Czechoslovakia (CSN)

11 stds for aviation instruments and details of their mounting
CSN 316800, -6810/6, -6819, -6821/2, 316720/2, -6724

4 stds for pneumatic valve connection:
CSN 316720/2, 316724

France (AFNOR)

Ferrules for safety belts
NF L47-211/2

Special shape of door trimming
NF L 82-450

Japan (JISC)

Plywood used in aircraft construction
JIS W 1101

Final inspection of aircraft JIS W 2002

Inspection of wheel and brake assembly
JIS W 2501

Poland

Aerodynamic tables PN L-02001

2 stds for aviation lubricants
PN C-96155, -96157

63 AGRICULTURE

Australia (SAA)

Chlorates for agricultural weed killers
AS N.24—1955

Arsenical preparations for agricultural insecticides and pest destroyers
AS N.25—1955

France (AFNOR)

5 stds for chemical analysis of fertilizers NF U 41-001, -102/4, -106
Phytopathological products. Terminology NF U 43-200
Testing of anthracene oil NF U 43-213
Different types of vegetables NF V 25-005

Germany (DNA)

Pneumatic tires for front wheels of tractors DIN 7808
Pneumatic tires for agricultural machines DIN 7813
Bottom reinforcement of milk cans DIN 11503

Poland

4 stds for testing silkworm cocoons PN P-04752, -55, -57, -59

Sweden (SIS)

Brake drums and linings for farm tractor trailers SIS 359207

643.645 THE HOME AND HOUSEHOLD EQUIPMENT

Chile (INDITECNOR)

Glazed china bathroom equipment and its testing INDITECNOR 61-20/21

Czechoslovakia (CSN)

Water supply inside residential buildings CSN 730121

645 FURNITURE. FURNISHINGS.

Austria (ÖNA)

Sizes for mattresses ÖNORM K 3040

655 PRINTING

Germany (DNA)

Glass photoengraving screen DIN 16540

656 TRANSPORT ORGANIZATION

Italy (UNI)

Statistical data relative to interurban trolley-bus lines UNI 3603

The Netherlands (HCNN)

4 stds for form, size and position of street name plates and house numbering plates V 1771/4

66 CHEMICAL INDUSTRY

Belgium (IBN)

10 stds for sampling and testing petroleum products:
Sampling NBN 52.001
Specific gravity at 15/4 C NBN 52.011 and 52.015
Kinematic viscosity NBN 52.012 and 52.016
Flash point NBN 52.013 and 52.017
Saponification index NBN 52.041
Neutralization index NBN 52.042
Ash content of petroleum oils NBN 52.044
ASTM dropping point of greases NBN 52.064
Aniline point NBN 52.079
Ash content in lubricating greases NBN 52.084

Bulgaria

Aluminum sulfate BDS 1841-54
Ortho-sodium phosphate, tribasic BDS 1842-54
Carbon dioxide, liquid BDS 1676-54
Sulphur dioxide, liquid BDS 1677-54
Silver nitrate BDS 1735-54
Nicotine sulfate, 40% BDS 1813-54
Smoke powder for ignition fuses BDS 1756-54
Oil for motor car hydraulic brakes BDS 50-54

Germany (DNA)

3 tests of paraffin DIN 51570/2

Israel (SII)

Concentrated orange juice, preserved SI 10.2
Concentrated grape-fruit juice, preserved SI 16.2
Concentrated lemon juice, preserved SI 17
Tomato juice products, preservation of SI 41

Japan (JISC)

10 stds for different tests for liquid fuels JIS K 2205, -2251/3, -2265, -2269/70, -2272/3, -2275

The Netherlands (HCNN)

Dehydrated castor oil and standoil from dehydrated castor oil N 1253

Poland

Solar oil PN C-96078
Determination of paraffin content in mineral oil PN C-04111
Testing for corrosive action of emulsified oils on grey iron PN C-04003
Graphical symbols used in chemical industry plants PN C-01358
6 stds for testing drinking water PN C-04586, -589, -591/2, -594/5
Vocabulary (5 languages) of inorganic chemical industrial products PN C-01021
Determination of tar and oil content in manufactured gas PN C-04770
Analysis of mineral oil products PN C-04070, -04047, -04074
Carbide PN C-23050
Acetylene PN C-84905

Spain (IRATRA)

Fulminate of mercury UNE 31205
Cellulose of cotton used in powder manufacturing UNE 31605

662.9 HEATING APPARATUS AND METHODS

Germany (DNA)

Household gas stoves, ovens, etc DIN 3360

664 PREPARATION AND PRESERVATION OF SOLID FOODSTUFFS

Israel (SII)

Canned green peas with carrots SI 147
Canned fruits and vegetables SI 143

666 GLASS AND CERAMICS INDUSTRY. ARTIFICIAL STONE

Chile (INDITECNOR)

Concrete blocks INDITECNOR 30-152
Testing of concrete blocks INDITECNOR 30-154

Czechoslovakia (CSN)

Laminated safety glass CSN 709081
3 stds for determination of optical characteristics of glass CSN 710121, -0132, -0134

Japan (JISC)

5 stds for different export glassware for domestic use JIS S 1001/2, -2007, -4009, -9012

New Zealand (NZSI)

Code of practice for terrazzo work 589, Sept, 1948
Concrete roofing tiles 795, May, 1951
Gypsum casting plaster 1213, Aug, 1954

Spain (IRATRA)

Method of determination of moisture in lime and limestone UNE 7094

Sweden (SIS)

4 stds for screw threads and screw caps for glassware SIS 711011/4

Uruguay (UNIT)

Portland cement. General UNIT 20-55
High resistance portland cement UNIT 41-55
Reinforced concrete UNIT 104-55
Chalk, general UNIT 109-55

667.6/.8 PAINTS. VARNISHES. LACQUER

New Zealand (NZSI)

Classification of ready-mixed paint for finishing coats (white and light tints) for use on exterior woodwork, government purchasing series GP11, April, 1954

Poland

2 stds for testing lacquer film PN C-81522, -529
Testing of dry pigments PN C-04201

668 VARIOUS ORGANIC CHEMICAL INDUSTRIES

New Zealand (NZSI)

Liquid toilet soap for general purposes, government purchasing series GP 12, April, 1954

Poland

6 stds for different tests of various pyroligneous products obtained in tar distillation PN C-97004, -009, -061, -63, -68, -73.
4 stds for different products of tar distillation PN C-97002/3, -97011, -97031

669 METALLURGY

Austria (ÖNA)

Steel plates for boilers, type K, and other vessels ÖNORM M 3121
Tolerances for gray iron and steel castings ÖNORM M 1366

Czechoslovakia (CSN)

3 stds for different chemical analysis of commercial iron CSN 420520/1, -23
25 stds for aluminum and its alloys CSN series 424 . . .
8 stds for different alloy structural steel CSN 413120, -5141, -5334, -6140, -6232, -6242, 6332
2 stds for color code for steels CSN 420010, -0012
Steel plates, hot rolled CSN 425310
39 stds for specification of different grades of tool steel CSN series 419 . . .
3 stds for grey cast iron, non-alloyed CSN 422432, -2435, -2438

France (AFNOR)

3 stds for cold-drawn, non-alloy steel rounds, squares and hexagons NF A 47-411/3, -451
Calibrated and polished cold-drawn steel rounds NF A 47-451

Germany (DNA)

Phosphatizing of steel for protection from corrosion DIN 50942
Pure aluminum: squares and hexagons DIN 59700/1

NEWS BRIEFS.....

• "The girl who wears glasses" and, of course, the man who sells them both need to know what "first quality" lenses are. This was brought out in a request for American Standards made by a general conference on ophthalmic lenses, March 5.

The conference of 30 representatives of optical manufacturers, optometrists, the medical profession, U.S. government, Armed Forces, health, safety and public interest groups voted unanimously to ask the American Standards Association to set up a project for "terminology, definitions, specifications, and methods of test for ophthalmic lenses."

The group formally requested the Association to establish a national committee composed of representatives of all groups concerned to write "standards that will enable the general public to know what first quality lenses are and insure them of getting first quality when they ask for it." The Optical Manufacturers Association was nominated to provide administrative leadership as sponsor of the project. Dr Karl J. Rudolph, chairman, Indiana Interprofessional Committee on Eye Care, the organization which originally proposed the project, pointed out that there are now in use varying standards written by at least eight different agencies.

"Our basic problem is to obtain agreement of the manufacturers of ophthalmic lenses, the optical laboratories, and the eye care professions on what should constitute first quality," he said. "We want a national standard," he declared, adding that such a standard would solve the difficulty of people who ask for first quality lenses and instead get an inferior product. He emphasized that the general consumer uses 90 percent of all lenses manufactured and should be protected.

In a related field, H. W. Hoffstetter, president, Association of Schools and Colleges of Optometry, pointed out that the lack of standards "has made the teaching of concepts of quality and control in ophthalmic materials a veritable nightmare."

• President Eisenhower will speak at the opening session of this year's President's Conference on Occupational Safety which is being held in Washington, D. C., May 14-16. Speakers at the opening session will be The Honorable James P. Mitchell, Secretary of Labor, and The Honorable Arthur Larson, Under Secretary of Labor.

Secretary of the Interior Douglas McKay will speak on Safety of Public Employees at the afternoon session, May 14. Secretary of Agriculture Ezra Benson will address the meeting on the subject of Farm Safety. Other subjects to be discussed at this session will include "What the States Should Do in Safety" and "Safety Aspects of Industrial Development of Atomic Energy."

A number of safety clinics will be features of the Tuesday morning session, May 15. Dr Isador Lubin, Commissioner, N.Y. State Department of Labor, will represent the state commissioners on the panel for the State Occupational Safety Clinic. P. L. Siemiller, General Vice-President, International Association of Machinists, will represent the labor viewpoint. The industry speaker will be announced later.

A Farm Safety Clinic and a Public Employee Safety Clinic will also be held at this session.

Feature of the afternoon session, May 15, will be a dramatization of a community safety program.

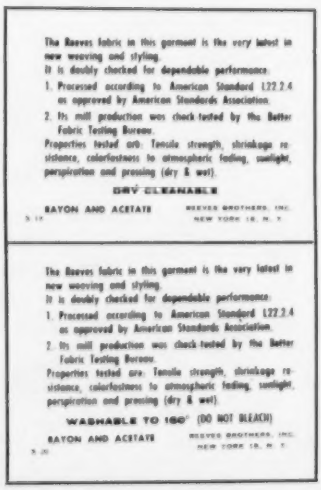
The responsibility of management and labor for the prevention of accidents will be discussed at the Wednesday morning session, May 16.

The Honorable James P. Mitchell, Secretary of Labor, will present the Report to the President as the final feature of the meeting.

Here are the tags that Reeves Brothers are planning to use on their merchandise that meets the requirements of American Standards L22, Minimum Requirements for Rayon and Acetate Fabrics.

On this side—
Reeves emphasizes
"*new* styles, *new* weaves,
and *doubly* checked for dependable performance."

On the other side—
the tag tells specifically what properties have been tested and whether the fabric is "dry cleanable" or "washable" and that in this case it has been "processed according to American Standard L22.2.4 as approved by American Standards Association."


The Reeves fabric in this garment is the very latest in new weaving and styling.
It is doubly checked for dependable performance.
1. Processed according to American Standard L22.2.4 as approved by American Standards Association.
2. Its mill production was check tested by the Better Fabric Testing Bureau.
Properties tested are: Tensile strength, shrinkage resistance, colorfastness to atmospheric fading, sunlight, perspiration and pressing (dry & wet).
DRY CLEANABLE
RAYON AND ACETATE
REEVES BROTHERS, INC.
NEW YORK 18, N. Y.

The Reeves fabric in this garment is the very latest in new weaving and styling.
It is doubly checked for dependable performance.
1. Processed according to American Standard L22.2.4 as approved by American Standards Association.
2. Its mill production was check tested by the Better Fabric Testing Bureau.
Properties tested are: Tensile strength, shrinkage resistance, colorfastness to atmospheric fading, sunlight, perspiration and pressing (dry & wet).
WASHABLE TO 160° (DO NOT BLEACH)
RAYON AND ACETATE
REEVES BROTHERS, INC.
NEW YORK 18, N. Y.

BOOK REVIEWS

ASTM Standards on Petroleum Products and Lubricants. *November 1955. 6 x 9. 984 pp. American Society for Testing Materials, 1916 Race Street, Philadelphia 3, Pa. Cloth cover $7.15. Paper covers $6.50.*

Published annually since 1927, this compilation includes 159 standards, 41 of which are new or revised since the previous edition. Many of the standards included are approved American Standards, processed through Sectional Committee Z11. The compilation includes tentative and standard methods of test, specifications, definitions of terms, and classifications of petroleum products and lubricants. It also includes related information, such as the Report of Committee D-2 and many proposed methods of test.

Among the new tentative methods of test are those for lubricating qualities of graphites and for trace concentrations of tetraethyllead in primary reference fuels. New standard methods of test include aromatic hydrocarbons in olefin-free gasolines; oxygen in butadiene vapors; effect of grease on copper; lead in new and used greases; sampling liquefied petroleum gases; unsaturated light hydrocarbons; and others.

Layout of Periodicals, ISO R8. *First edition. October 1955. International Organization for Standardization, Geneva, Switzerland. (Available from the American Standards Association, 70 East 45 Street, New York 17, N. Y.) $1.00.*

Approved by 21 of the 34 Member Bodies of the International Organization for Standardization, this Recommendation is intended as a guide to editors and publishers of periodicals in providing information needed by readers and librarians. Among the recommendations are suggestions in connection with periodical titles; pagination; reference material to be included on the title page; what a volume should include; when changes should be made; and how to handle supplements.

This international recommendation was approved by the following ISO Member-Bodies: Austria, Belguim, Canada, Chile, Denmark, France, Hungary, Ireland, Israel, Japan, Mexico, Netherlands, New Zealand, Pakistan, Poland, Portugal, Spain, Sweden, Switzerland, Union of South Africa, United Kingdom. The American Standards Association, USA Member Body, stated that it had no objection to approval.

Under the procedures of the International Organization for Standardization, it is intended that these recommendations will be put into effect through national standards adopted in each country rather than by adoption of the international recommendations as such. The American Standard Reference Data and Arrangement of Periodicals, Z39.1-1943, contains very similar recommendations. This American Standard was prepared by a sectional committee under the procedure of the American Standards Association and now sponsored by the Council of National Library Associations.

ISO R8 was developed by Technical Committee 46, Documentation, with the Nederlands Instituut voor Documentatie en Registratuur as secretariat on behalf of the Hoofdcommissie voor de Normalisatie in Nederland, the national standards association.

Power Transformers. IEC Publication 76. *First edition. International Electrotechnical Commission, Geneva, Switzerland. (Available from the American Standards Association, 70 E. 45 Street, New York 17, N. Y. $4.00)*

These international recommendations replace earlier rules formerly published in the IEC Rules for Electrical Machinery. The publication contains sections on losses and efficiencies, tolerances, limits of temperature rise, temperature measurements, insulation levels and tests, ability of transformers to withstand a short circuit, rating plates, standard kva ratings, standard tappings, and definition and designation of connections of three-phase transformers.

Appendices cover designation of three-phase transformer connections and phase-angles; connection in parallel of three-phase transformers; calculation of voltage regulation; classification of insulating materials; nominal and highest system voltages.

Standards of the Hydraulic Institute. *Tenth Edition. 1955. 8½ x 11 in. Loose leaf, 5-ring binder. 234 pp. Revision notification service provided. The Hydraulic Institute, 122 E. 42nd Street, New York 17, N. Y. $4.75.*

A complete revision and rearrangement of the format and engineering data contained in earlier editions is contained in this tenth edition. More than two years of engineering study and research have gone into this book to insure that it represents an up-to-date consensus of outstanding hydraulic pump engineers.

Much of the information in the book is not published elsewhere.

The five sections in this edition cover: (1) General information about the Institute and a history of the publication; (2) centrifugal pumps; (3) rotary pumps; (4) reciprocating pumps; (5) data section. A complete index is included in this edition.

The three sections on the basic types of pumps cover classification, nomenclature, application, rating, testing, and instructions for installation, operation, and maintenance for each type of pump. More than 120 part names are listed in the Centrifugal Pump Section.

The book also includes examples of completely solved mathematical problems dealing with such complex subjects as calculation of net positive suction head, calculation of pump size for specific conditions of head and volume, determination of critical sigma, and determination of pump performance when handling viscous liquids.

AMERICAN STANDARDS UNDER WAY

Status as of March 31, 1956

BUILDING AND CONSTRUCTION

American Standards Published—

Gypsum Sheathing Board, Standard Specifications for, ASTM C 79-54; ASA A68.1-1956 $.30

Testing Gypsum and Gypsum Products, Standard Methods of, ASTM C 26-54; ASA A70.1-1956 $.30

Gypsum Lath, Specifications for, ASTM C 37-54; ASA A67.1-1956 $.30

Gypsum Partition Tile or Block, Specifications for, ASTM C 52-54; ASA A105.1-1956 $.30
Sponsor: American Society for Testing Materials

In Standards Board—

Drain Tile, Specifications for, ASTM C 4-55; ASA A6.1 (Revision of ASTM C 4-50T; ASA A6.1-1954)

Gypsum Plasters, Specifications for, ASTM C 28-55; ASA A49.3; (Revision of ASTM C 28-50; ASA A49.3-1951)

Gypsum Wallboard, Specifications for, ASTM C 36-55; ASA A69.1 (Revision of ASTM C 36-54; ASA A69.1-1955)

Structural Clay Load-Bearing Wall Tile, Specifications for, ASTM C 34-55; ASA A74.1 (Revision of ASTM C 34-52; ASA A74.1-1953)

Concrete Building Brick, Specifications for, ASTM C 55-55; ASA A75.1 (Revision of ASTM C 55-52; ASA A75.1-1953)

Concrete Masonry Units, Methods of Sampling and Testing, ASTM C 140-55; ASA A84.1 (Revision of ASTM C 140-52; ASA A84.1-1953)

Vitrified Clay Filter Block for Trickling Filters, ASTM C 159-55; ASA A102.1 (Revision of ASTM C 159-51; ASA A102.1-1954)

Definitions of Terms Relating to Structural Clay Tile, ASTM C 43-55; ASA A104.1 (Revision of ASTM C 43-50; ASA A104.1-1954)
Sponsor: American Society for Testing Materials

CHEMICAL INDUSTRY

Project Requested—

Industrial Cooling Towers
Requested by: Chemical Industry Advisory Board

Standard Submitted—

Raw Linseed Oil, Specifications for, Revision of ASTM D 234-48; ASA K34-1949

Boiled Linseed Oil, Specifications for, Revision of ASTM D 260-48; ASA K35-1949

Tinting Strength of White Pigments, Method of Test for, Revision of ASTM D 322-36; ASA K56-1941
Sponsor: American Society for Testing Materials

CONSUMER GOODS

In Standards Board—

Test Procedures for Household Electric Refrigerators (Mechanically Operated), Revision of B38.2-1944
Sponsors: American Society of Refrigerating Engineers; Clothing and Housing Research Branch, Agricultural Research Service, U.S. Department of Agriculture

Colorfastness to Acids and Alkalies, AATCC Standard Test Method 6-52; Revision of ASA L14.2-1949

Colorfastness to Carbonizing (Wool), AATCC Standard Test Method 11-52; Revision of ASA L14.3-1949

Colorfastness to Degumming (Silk), AATCC Standard Test Method 7-52; Revision of ASA L14.4-1949

Colorfastness to Fulling (Wool), AATCC Standard Test Method 2-52; Revision of ASA L14.5-1949

Colorfastness to Mill Washing and Scouring (Wool), AATCC Standard Test Method 1-52; Revision of ASA L14.6-1949

Colorfastness to Peroxide Bleaching (Silk), AATCC Standard Test Method, 13-52; Revision of ASA L14.7-1949

Colorfastness to Stoving (Wool), AATCC Standard Test Method 9-52; Revision of ASA L14.9-1949

Evaluation of Ordinary Wetting Agents, AATCC Standard Test Method 17-52; Revision of ASA L14.11-1949

Colorfastness to Perspiration, AATCC Standard Test Method 15-52; Revision of ASA L14.56-1951

Colorfastness to Chlorine Bleaching (Cotton), AATCC Standard Test Method 3-52; Revision of ASA L14.57-1951

Colorfastness to Mill Washing (Silk), AATCC Standard Test Method 4-52; ASA L14.70

Colorfastness to Dry and Wet Heat, AATCC Tentative Test Method 5-52; ASA L14.71

Colorfastness to Rubbing (Crocking), AATCC Standard Test Method 8-52; ASA L14.72

Detection of Phototropism, AATCC Tentative Test Method 32-52; ASA L14.73

Resistance to Water Penetration (rain test), AATCC Standard Test Method 35-52; ASTM D583-54, part; ASA L14.74

Evaluation of Textiles for Wettability, AATCC Tentative Test Method 39-52; ASA L14.75

Dimensional Changes in Textile Fabrics (Other than Cotton and Linen), AATCC Tentative Test Method 40-52; ASA L14.76

Dimensional Changes in Textile Fabrics (Wool: Accelerated Test), AATCC Tentative Test Method 41-52; ASA L14.77

Resistance to Water Penetration (Impact Penetration Test), AATCC Tentative Test Method 42-52; ASTM D 583-54 part, ASA L14.78

Evaluation of Penetrants for Mercerization, AATCC Tentative Test Method 43-52; ASA L14.79

Colorfastness to Mercerizing, AATCC Standard Test Method 51-52; ASA L14.80

Accelerated Washfastness Tests Nos. IIA, IIIA and IVA Cotton, AATCC Tentative Test Method 61-54; ASA L14.81

Evaluation of the Resistance of Wool Oils to Oxidation in Storage, AATCC Tentative Test Method 62-52; ASA L14.82

Colorfastness to Water, AATCC Tentative Test Method 63-52; ASA L14.83

Evaluation of Continuous Scouring of Raw Grease Wool, AATCC Tentative Test Method 64-52; ASA L14.84

Evaluation of the Snag Resistance of Hosiery, AATCC Tentative Test Method 65-54; ASTM D 1115-54T; ASA L14.-85

Damage Caused by Retained Chlorine, AATCC Tentative Test Method 69-52; ASA L14.86

Resistance to Wetting (Dynamic Immersion Absorption Test), AATCC Tentative Test Method 70-52; ASTM D 583-54, part; ASA L14.87

Wool Hose: Accelerated Shrinkage Test, AATCC Tentative Test Method 73-53; ASA L14.88

Relaxation and Felting Shrinkage of Wool Knit Fabrics (except hose), Accelerated Test, AATCC Tentative Test Method 74-53; ASTM D 1284-53T; ASA L14.89
Sponsor: American Society for Testing Materials

Withdrawal Being Considered—

Test for Colorfastness of Textiles to Sea Water, AATCC 63-52; ASA L14.8-1949

Test for Mercerization, AATCC 51-52; ASA L14.10-1949

ELECTRIC AND ELECTRONIC

American Standards Published—

Electrical Resistance of Insulating Materials, Tentative Methods of Test for, ASTM D 257-54 T; ASA C59.3-1955 $.30
Sponsor: American Society for Testing Materials

Guide for Electrical Measurements of Fluorescent Lamps, C78.375-1955 $.15
Sponsor: Electrical Standards Board

American Standards Approved—

Aluminum Bars for Electrical Purposes (Bus Bars), Specifications for, ASTM B236-55T; ASA C7.27-1956 (Revision of ASTM B236-52T; ASA C7.27-1953)

Zinc-Coated (Galvanized) High-Tensile Steel Telephone and Telegraph Line Wire, Specifications for, ASTM A326-52; ASA C7.30-1956 (This standard covers steel line wire formerly covered by a portion of G8.3-1944)

Zinc-Coated (Galvanized), "Iron" Telephone and Telegraph Line Wire, Specifications for, ASTM A 111-52; ASA C7.31-1956 (Revision of ASTM A 111-43; ASA G8.3-1944)

Zinc-Coated Steel Wire Strand "Galvanized" and Class A ("Extra Galvanized"), ASTM A 122-54T; ASA C7.32-1956 (Revision of ASTM A 122-41; ASA G8.6-1943)

Zinc-Coated Steel Wire Strand (Class B and Class C Coatings), Specifications for, ASTM A 218-54T; ASA C7.33-1956 (Revision of ASTM A 218-41; ASA G8.11-1944)
Sponsor: American Society for Testing Materials

Incandescent Lamps, General Service for 230- and 250-Volt Circuits, C78.101-1956 (Revision of C78.101-1949)

Fluorescent Lamp Starters, C78.180-1956
Testing Fluorescent Lamp Starters, Method of, C78.181-1956

Code for the Designation of Photo Lamps, C78.370-1956

Dimensional and Electrical Characteristics of 90-Watt T-17 Preheat Start Fluorescent Lamp, C78.411-1956 (Revision of C78.411-1955)
Sponsor: Electrical Standards Board

In Standards Board—

Terminal Markings for Electrical Apparatus, Revision of C6.1-1944
Sponsor: National Electrical Manufacturers Association

Distribution, Power, and Regulating Transformers, and Reactors other than Current-Limiting Reactors, Revision of C57.12-1949

Requirement for Transformers, 67,000 Volts and below; 501 through 10,000 Kva, 3-Phase; 501 through 5,000 Kva, 1 Phase, Revision of C57.12a-1954

Test Code for Distribution, Power, and Regulating Transformers, Revision of C57.22-1948
Sponsor: Electrical Standards Board

Definitions of Semiconductor Terms, ASA C60.14; IRE 7.S2
Sponsor: Joint Electron Tube Engineering Council

Brushes for Electrical Machines, Revision of NEMA CB1-1951; ASA C64.1-1950
Sponsor: National Electrical Manufacturers Association

Standard Submitted—

Coupling Capacitors, Coupling Capacitor Potential Devices, and Line Traps, NEMA Standards Publication SG11, Sept 1955
Sponsor: Electrical Standards Board

Standards Withdrawn—

Machine Tool Electrical Standards, C74-1942
Sponsor: National Machine Tool Builders' Association

Dimensional and Electrical Characteristics of 100-Watt T-17 Preheat Start Fluorescent Lamp, C78.410-1955
Sponsor: Electrical Standards Board

GAS-BURNING APPLIANCES

American Standard Published—

Approval Requirements for Gas Unit Heaters, Z21.16b-1955 (Addenda to American Standard Z21.16-1951 and Z21.16a-1953) $.40

Approval Requirements for Central Heating Gas Appliances, Volume II, Gravity and Forced Air Central Furnaces, Z21.-13.2-1955 $2.00
Sponsor: American Gas Association

MATERIALS AND TESTING

American Standards Published—

Standard Hardness Conversion Table for Cartridge Brass, ASTM E 33-42; ASA Z76.1-1955 $.30

Chemical Analysis of Refractory Materials, Standard Methods of, ASTM C 18-52; ASA A 111.2-1955 $.30

Fireclay Refractories, Standard Classification of, ASTM C 27-41; ASA A111.5-1955 $.30

Refractories for Heavy-Duty Stationary Boiler Service, ASTM C 64-51; ASA A111.8-1955 $.30

True Specific Gravity of Refractory Materials, Method of Test for, ASTM C 135-47; ASA A111.19-1955 $.30
Sponsor: American Society for Testing Materials

American Standards Approved—

Methods of Test for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles, ASTM A 90-53; ASA G8.12-1956

Recommended Practice for Safeguarding Against Embrittlement of Hot Galvanized Structural Steel Products and Procedures for Detecting Embrittlement, ASTM A 143-46; ASA G8.13-1956

Zinc Coating (Hot-Dip on Iron and Steel Hardware, Specifications for, ASTM A 153-53; ASA G8.14-1956
Sponsor: American Society for Testing Materials

Standards Submitted—

Copper and Copper-Base Alloy Forging Rod, Bar, and Shapes, Revision of ASTM B 124-54; ASA H7.1-1954

Rolled Copper-Alloy Bearing and Expansion Plates and Sheets for Bridge and Other Structural Uses, Revision of ASTM B 100-54; ASA H31.1-1954
Sponsor: American Society for Testing Materials

Reaffirmation Being Considered—

Specifications for Zinc-Coated (Galvanized) Iron or Steel Tie Wires, ASTM A 112-33; ASA G8.4-1935

Specifications for Zinc-Coated (Galvanized) Iron or Steel Farm-Field and Railroad Right-of-Way Wire Fencing, ASTM A 116-48; ASA G8.9-1948

Specifications for Zinc-Coated Iron or Steel Chain-Link Fence Fabric Galvanized After Weaving, ASTM A 117-33; ASA G8.5-1935
Sponsor: American Society for Testing Materials

MECHANICAL

American Standard Published—

Scheme for the Identification of Piping Systems, A13.1-1956 $1.00
Sponsors: National Safety Council; The American Society of Mechanical Engineers
Standard identification by means of lettered legend or color or both to identify materials conveyed in piping systems in industrial and power plants. Does not cover pipes buried in the ground or electrical conduits. Purpose is to promote greater safety and lessen the chance of error and confusion.

American Standard Approved—

Slotted and Recessed Head Wood Screws, B18.6.1-1956 (Partial Revision of B18.6-1947)
Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers.

PETROLEUM PRODUCTS AND LUBRICANTS

American Standard Published—

Oxidation Stability of Gasoline (Induction Period Method), Method of Test for, ASTM D 525-55; ASA Z11.63-1955 $.30
Sponsor: American Society for Testing Materials

In Board of Review—

20-Degree Involute Fine-Pitch System for Spur and Helical Gears, Revision of B6.7-1950

Inspection of Fine-Pitch Gears, Revision of B6.11-1951
Sponsors: American Gear Manufacturers Association; American Society of Mechanical Engineers

Ring-Joint Gaskets and Grooves for Steel Pipe Flanges, Revision of B16.20-1952
Sponsors: American Society of Mechanical Engineers; Heating, Piping and Air Conditioning Contractors National Association (now The Mechanical Contractors Association of America); and the Manufacturers Standardization Society of the Valve and Fittings Industry

In Standards Board—

Hexagon Head Cap Screws, Slotted Head Cap Screws, Square Head Set Screws, Slotted Headless Set Screws, B18.6.2 (Revision of B18.6-1947)
Sponsors: Society of Automotive Engineers; The American Society of Mechanical Engineers

Conveyor Terms and Definitions, B75
Sponsor: Conveyor Equipment Manufacturers Association

PHOTOGRAPHY

American Standard Published—

35mm Slidefilm Projection Rolls, American Standard Specification for, PH1.24-1955 $.25
Sponsor: Photographic Standards Board

In Standards Board—

16mm Film Perforated Along Two Edges, Usage in Camera, PH22.9 (Revision of Z22.9-1946)

16mm Film Perforated Along Two Edges, Usage in Projector, PH22.10 (Revision of Z22.10-1947)

Picture Printer Aperature for Contact Printing 16mm Positive from 16mm Negative (Revision of Z22.48-1946)

Magnetic Coating of 8mm Motion-Picture Film, PH22.88

200-Mil Magnetic Sound Record on 16 mm Film Base Perforated One Edge, PH22.97

Magnetic Coating of 16mm Film Perforated Along Both Edges, PH 22.101
Sponsor: Society of Motion Picture and Television Engineers

WHAT'S NEW ON AMERICAN STANDARDS PROJECTS

Coordination of Dimensions of Building Materials and Equipment, A62—

Sponsors: American Institute of Architects; Producers' Council; National Association of Home Builders

Work should be started immediately to develop standards for coordination of products used in integrated ceilings. This was the recommendation of a group of 22 individuals representing 16 companies and organizations at a meeting in Cincinnati, March 22. Along with representatives of organizations concerned with the building industry, those who took part represented manufacturers of electric lighting fixtures and lamps, several kinds of acoustic ceiling materials, and metal ceiling suspension systems.

The group asked Committee A62 to organize a subcommittee to start work immediately on development of proposed standards based on the American Standard 4-in. module for coordination of dimensions of products used in the construction of integrated ceilings. These would include ceiling materials, suspension systems, lighting fixtures, and air conditioning and heating fixtures. It was pointed out that tolerances will have to be worked out for the various ceiling units to make it possible for them to fit together without special fitting at the site.

Committee A62 is expected to act on the request at its meeting May 8.

Code for Pressure Piping, B31—

Sponsor: The American Society of Mechanical Engineers

Plans for publishing a revised edition of the Code in seven sections, each in a separate book, are now under way. All material on district heating will be combined with the section on power piping. Material now handled through cross references to other sections will be included in each section and cross references eliminated.

The seven sections will cover: (1) Power piping, including district heating; (2) Industrial gas and air piping; (3) Oil refinery piping; (4) Refrigeration piping; (5) Gas transmission piping; (6) Oil transmission piping; (7) Chemical piping.

All sections will be numbered according to a uniform outline. A decimal classification system has been worked out and titles have been assigned to the paragraph numbers.

Gage Blanks, B47—

A proposed revision of the American Standard B47.1-1941, Gage Blanks, is now before the American Standards Association. The proposed revision consists of a revision and 1955 Supplement to Commercial Standard CS 8-41, which was approved in 1941 as American Standard. Since no sectional committee is active in this field, organizations concerned are being canvassed for their views on approval of the new edition. Comments and suggestions for changes received from the Telephone Group are being referred to the Gage Design Committee of the Commodity Standards Division, U.S. Department of Commerce, which developed the standard.

Electronic Components, C83—

Sponsor: Radio-Electronics-Television Manufacturers Association

H. N. Wagar, Bell Telephone Laboratories, has been named chairman of the Task Force on Relay Definitions and Terminology, succeeding John Csepely. Mr Wagar is co-author with R. L. Peek, Jr, of a book entitled *Switching Relay Design* which was published in 1955 in the Bell Laboratories series by Van Nostrand Company.

The Task Force is having frequent meetings and expects to complete a draft standard this Fall.

Shock-Proof Cable Terminals and Receptacles for Use on X-Ray Equipment, C86—

Sponsor: National Electrical Manufacturers Association; General Services Administration

The organization meeting of this committee was held March 7. This new project was organized by ASA as a result of a general conference held last year which considered Federal Standard 72 on this subject and suggested changes. A draft standard incorporating proposed changes to the Federal Standard and a number of additional features was prepared at the organization meeting of the committee. The draft will be sent to the members of the sectional committee for letter ballot action.

T. H. Rogers, Manager of Engineering, Machlett Laboratories, Inc, Springdale, Conn, is chairman of the committee.

Fundamentals of Performance of Effluent Air and Gas Cleaning Equipment, Z74—

Sponsors: American Society of Mechanical Engineers; American Society of Heating and Air-Conditioning Engineers

The first meeting of the committee was held February 7, with Dr Allen D. Brandt as chairman and Harry Pier as secretary. Dr Brandt is with the Medical Department of the Bethlehem Steel Corporation; Mr. Pier, with the Research Corporation, Bound Brook, N. J.

The committee discussed the type of information that should be presented, and set up a subcommittee to prepare a sample outline for consideration by the committee before actual work is started.

Properties of Hydrocarbons and Related Compounds—

A canvass is being made of groups concerned on a proposal from the American Petroleum Institute that the Selected Values of Physical and Thermodynamic Properties of Hydrocarbons and Related Compounds be approved as American Standard.

In submitting these values, the API indicated that to the best of its knowledge the values are accepted throughout the world as the most authoritative data on the subject. If the canvass indicates that a consensus exists in favor of approval as American Standard, the "Selected Values" will be submitted to the Materials and Testing Standards Board for action.

Application Standards for Thermal Insulating Materials—

As the result of a request by a

general conference, a new project on Application Standards for Thermal Insulating Materials has been approved by the American Standards Association. The American Society of Heating and Air-Conditioning Engineers is being invited to serve as sponsor.

The general conference pointed out the difficulty of assuring satisfactory insulation without standards for the application of insulating materials.

The scope proposed for the committee's work is "Application standards for thermal insulating materials for the walls, roofs, and/or ceilings of buildings."

Institutional Textiles—

The following publications are included in the American Standard Minimum Performance Requirements for Institutional Textiles, L24, just issued:

Institutional Furnishings .... 65 cents
PART I: L24.1.1 through L24.1.7-1955
Utility Textiles ..... 90 cents
PART II: L24.2.1 through L24.2.11-1955 and including L4.1-1948
Uniforms .....90 cents
PART III: L24.3.1 through L24.3.7-1955 and including L22.1.4, L22.1.6, and L22.2.7-1952
Work Clothes .....90 cents
PART IV: L24.4.1 through L24.4.11-1955
PART V: Test Methods to be used in conjunction with the standards..$2.75
L24.5.1-1955: Permanent Labels, Detachable Tags, and Certification of Fabrics or Products.....25 cents

The price for the complete set is $6.25. Copies can be obtained from the American Standards Association.

Textiles—

The Textile Distributors Institute has submitted its proposed minimum standards covering synthetics to the National Retail Dry Goods Association, sponsor of ASA projects L22 and L25. The Institute has asked that these standards be considered for approval as American Standard. This would bring nylon and other fabrics of man-made fibers not including rayon and acetate into the series of American Standard minimum performance requirements in which rayon, acetate, and mixtures of rayon and acetate with other fibers have already been approved.

Standards Outlook

by LEO B. MOORE

MASTER STANDARDS LIST

For a long time the notion has intrigued me that standards engineers might profit from having a check list to serve as a reminder of standardization opportunity. Check lists are well known and oft-used devices of consultants and professional men when they survey an area for possible courses of action. Such devices assure them that matters that may need attention do not go unnoticed.

There are certain well-defined areas of activity of standards engineers that are common to company programs. Heading this list is the work in materials, followed closely by parts, and then progressing onward. Comparing companies and their endeavor, it becomes evident that after "parts" there is no uniformity of interest or activity. The question that comes to mind is whether the standards groups are missing opportunity — while acknowledging that no two companies should necessarily do the same thing. But have they deliberately rejected an area of activity for sound reason or has it gone by default?

Basic Areas
Product/Service
Components
Equipment
Materials
Controls
Methods
Personnel
Procedures
Records
Forms

This notion, together with the realization that there are two extremes possible, but not probable, in standardization, started the list idea. The first extreme is the possibility that a company could make a single standard product and everything in that company could be standardized. The other extreme is that a company might never make or do anything the same way twice. These are obvious extremes and would be unlikely really to exist. The first company might be too restrictive of its potential; the second could not exist economically. However, these ideas do indicate that a list seems feasible.

The list in order to be useful should consist of generic terms that refer to basic areas of business and all of its functions. The list should establish these terms in the descending order of their standardization impact on business. Each functional activity should draw from the list its possible areas of standards in descending order of opportunity, and decide the action to be taken.

Here is the list that we have been experimenting with. It says that we should see whether we can standardize the product/service we provide. If not, can we standardize its components? If not, proceed down the list. Each functional activity will be able to identify its own major areas and the order of opportunity in standardization.

This list has been tested only in teaching classes as a hypothesis, so I should be pleased to receive reactions regarding this attempt at a universal tool for standards for every economic activity.

Here is a standard

that makes it possible for you to

check your office rentals

Office owners—

- What is the "rentable area" of your office space?
- When are washrooms included?
- Are corridors rentable?
- Are elevators and stairways part of rentable office space?

Office renters—

- Are you paying for the "rentable area" of your office?

These are the questions answered by the

American Standard Method of Determining Areas in Office Buildings

Z65.1-1956 35 cents

Sponsored by the Office of Education, U. S. Department of Health, Education, and Welfare and the National Association of Building Owners and Managers.

This American Standard was first prepared by the National Association of Building Owners and Managers for the guidance of its own members. But those who rent office space are as much interested in what office areas their rent covers as building owners are in the rentals they receive. The Association brought its problem to the American Standards Association. Through ASA, architects and contractors, building owners and managers, as well as representatives of user groups, were included as members of Sectional Committee Z65. They worked out answers that suited all. American Standard Z65.1-1956 is the result.

This is the first standard in a series planned by Sectional Committee Z65. Others in the series will cover industrial buildings, government buildings, schools, and hospitals.

For copies of American Standard Z65.1-1956 write to the

American Standards Association

Incorporated

70 East 45 Street, New York 17, N. Y.